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May 28<sup>th</sup> 1907.







THE  
*Farmer's* INSTRUCTOR;  
OR, THE  
HUSBANDMAN *and* GARDENER'S  
USEFUL *and* NECESSARY  
COMPANION.

BEING

A New TREATISE of HUSBANDRY, GARDEN-  
ING, and other curious Matters relating to  
COUNTRY AFFAIRS.

CONTAINING

A Plain and Practical METHOD of improving all  
Sorts of *Meadow, Pasture, and Arable Land, &c.*  
and making them produce greater Crops of all Kinds,  
and at much less than the present Expence.

WITH

Many New, Useful, and Curious IMPROVEMENTS,  
never before Published.

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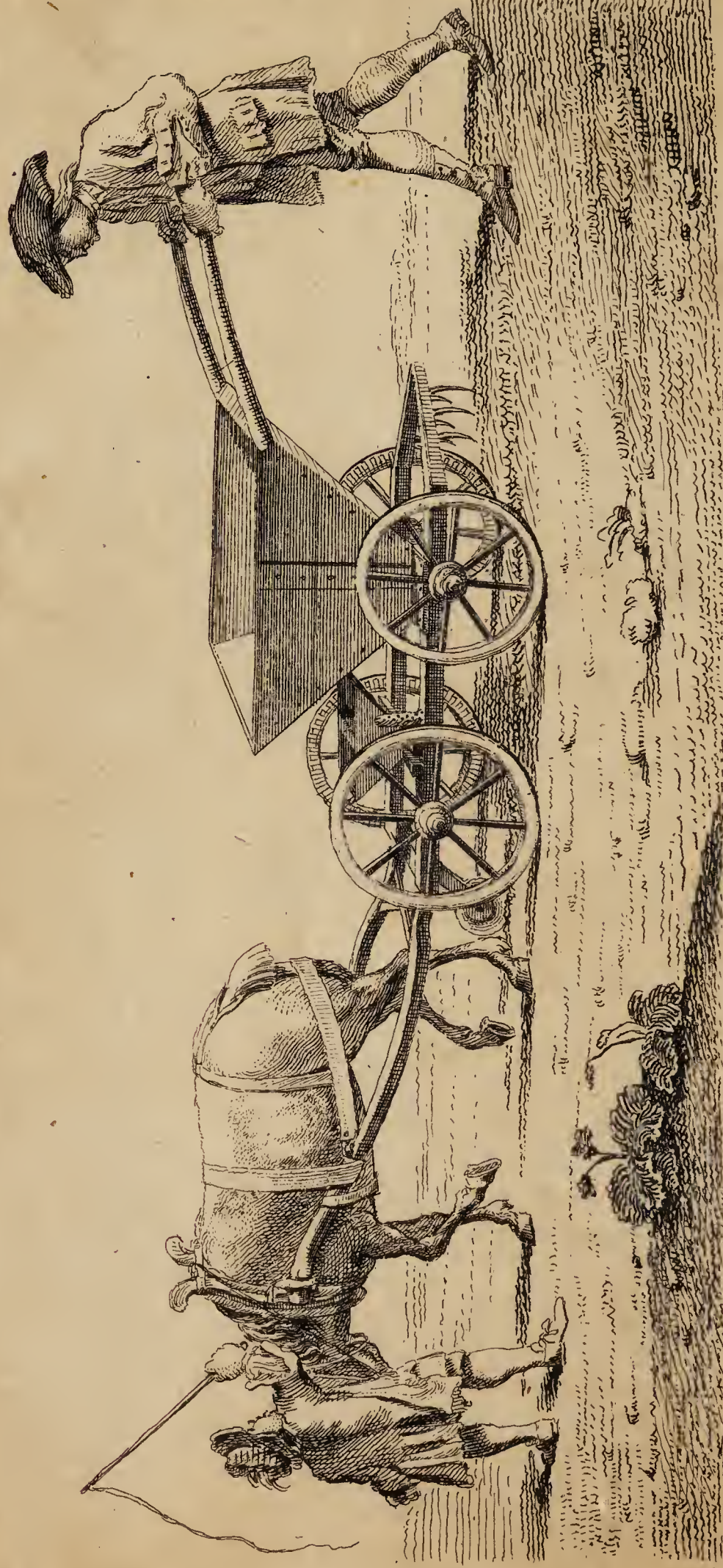
Printed for James Hodges, at the Looking-glass, facing St. Magnus Church, London-Bridge; and B. Collins, Bookseller, at Salisbury. 1750.

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*This four Wheel Drill Plow, with a Seed and a Manure Hopper, was first Invented in the Year 1745. and is now in Use with W<sup>m</sup> Ellis at Little Gaddesden near Hempsstead in Hertfordshire. where any person may View the same. It is so light that a Man may Draw it, but Generally drawn by a pony or little Horse.*



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*Wm. Ellis*  
THE  
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less than the present Expence. Giving an Account how  
poor Land, not worth above 5 s. an Acre, may be made to  
bear as good Crops of Grain, Grass, &c. as the richest, at  
the most reasonable Expence, by a new Manure, and the  
Use of a New Invented Excellent Four-Wheel-Drill-Plough,  
and Horse-break, both so light, that a Man may easily draw  
either of them, which are here exhibited, and the Uses and  
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By WILLIAM ELLIS, *Farmer,*

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L O N D O N :

Printed for J. HODGES, at the *Looking-Glass*, over-against  
St. Magnus Church, London-Bridge. 1750.







To the Honourable the  
**TREASURER,**  
 And the Rest of the  
**MASTERS of the BENCH**  
**OF THE**  
 Honourable Society of the *Inner-Temple.*

*Honoured Sirs,*



HE many Favours  
 that your Masterhips  
 have shewn to me from  
 my first entering into  
 your Service as *Stew-*  
*ard*, and the Continuance of the  
 same, obliges me to lay this small  
 Tract of *Agriculture and Gar-*  
*dening*

*dening* before You ; hoping You will excuse the Presumption of presenting to your Masterships so small a Specimen of my Gratitude. And as You are blest with very good Landed Estates, (and may they so continue for all Ages to come) this is humbly offered for the Improvement of 'em in almost every Species of Vegetation of our native Plants, &c. which if pursued, as directed therein, will I doubt not make a suitable Increase to every Part of your several Estates, and will add also something to your Pleasure as well as Profit, which is the utmost Desire of

*Your most Dutiful,*

*Most obliged, and*

*Devoted humble Servant,*

Samuel Trowell.





# THE PREFACE.

**N**ATURE does not seem to have been more luxurious in any of her Productions, than in those of the Vegetable Kind: Nor does any other Branch of Natural Philosophy yield a greater Variety for a curious Observer, to satisfy himself in the constant Order, and permanent Regularity of all her Operations; which cannot fail to raise, in an Unprejudiced and Contemplative Mind, the most sublime Ideas of the Omnipotent Author of so surprizing and so elegant a System of Things.

*But as it would be equally presumptuous and impertinent, to pretend to trace and explain the secret and hidden Springs of natural Productions, by Arguments à Priori, we must be contented, especially in our Scrutiny into the Knowledge of Vegetables, to reason only from Experience, and the Use of such Means as have been accidentally discovered, to be agreeable to Nature, by aiding and assisting her in the Course of her Operations.*

*For this Purpose the following Treatise is chiefly wrote to recommend the Practice of a perfect, new, and more profitable System of Husbandry, than ever was yet invented, and wrote on by any Author whatsoever. For this discovers not only how to have the greatest Crops of Grain and Grasses, &c. in the richest Land, at the least Trouble and Expence, but also how to make poor Land, not worth above four or five Shillings an Acre, bear as good Crops as the richest. A Proposal that I maintain, by shewing the Proof of it in my own Farm, to any Person that shall think fit to see the light Four-wheel Drill-Plough, the Two-wheel Hoe, and the Work performed by their Uses.*

Nor



Nor can there be any reasonable Objection made against their Operations in any Sort of Land whatsoever, so it be free of large Stones. For whether it be a Clay, a Loam, a Gravel, a Chalk, or a sandy Soil, if it is dry and fine, it will admit of this most excellent Husbandry, that surely prevents, in a very great Degree, the common Damage attending Crops of Corn, and other Vegetables sown in the Random Way, from Worms, and other Insects, Field Fowls, Weeds, and excessive Droughts and Rains.

It is true, there are several Sorts of Drill-Ploughs now in Use, as the Pulley, the Three-Wheel, the Two-Wheel, and the One-Wheel Sorts; but none of these has more than one Hopper, that is to sow Seed only: Whereas this my Four-Wheel Drill-Plough has two Hoppers, one for sowing Seed, and the other a powder'd Manure in a Drill, and barrows it at one and the same Time; yet is so light and commodiously made, that in several of its Works, one Man may draw it, while a hind Man guides and pushes it on, with less Labour, than the Ploughman holds a common Plough; by which, and by drawing  
the

*the superlative new-invented Two-Wheel Hoe along the Intervals twice or thrice in the Spring and Summer, that cleans two Intervals at once, the Ground may be kept clear all the Year, and thereby the Growth of Crops may not only be forwarded with the greatest Expedition, but the Field kept clean in a continual Tilt and Readiness to sow Grain in the same every Year successively, without losing one Season.*

*Mr. Trowell's Design seems to have been chiefly to have recommended a Salt Manure, invented by Thomas Liveings, which I am well assured, neither from its Quality or Price, could ever be brought to answer; instead of which, I have here substituted a never-failing Manure, and have given the Composition just preceding the first Chapter on Wheat: It is equally useful in every other Sort of Grain, but the inserting it in that Place only, I apprehend sufficient.*

*I am sure, this or any other proper Manure, sown on Seed out of the Four-Wheel Drill-Plough, will produce certain and profitable Effects. Nor are these two incomparable Instruments confined to*  
Field-



*Field-Work only, they may likewise be employed in large Gardens, for sowing Pease, Cabbage-Seed, Spinnage-Seed, and other Sorts, to the saving much Time, Labour, and Expence. For as this Drill-Plough is drawn only by a Poney, or very little Horse, and the Two-Wheel Hoe in the like Manner, their profitable Operations are many more than I have enumerated in the following Supplement; Advantages that our Forefathers were Strangers to; but now by the Help of these new and plain Machines, they may be easily and most cheaply obtained, to the great Benefit of Tenant, Landlord, and the Nation in general.*

*I have only to add, that notwithstanding I have here wrote a Supplement to Mr. Trowell's, yet, to do him Justice, I must say, he was a very ingenious Gentleman; and that what he was short in his Accounts of Husbandry, he made up by his Writings on Gardening, as being well known to be a celebrated Artist in that Science: I have therefore only enlarged that Part of his Work which relates to Husbandry, by leaving his Chapters entire as he wrote them, and inserting a Supplement immediately following; by  
which*

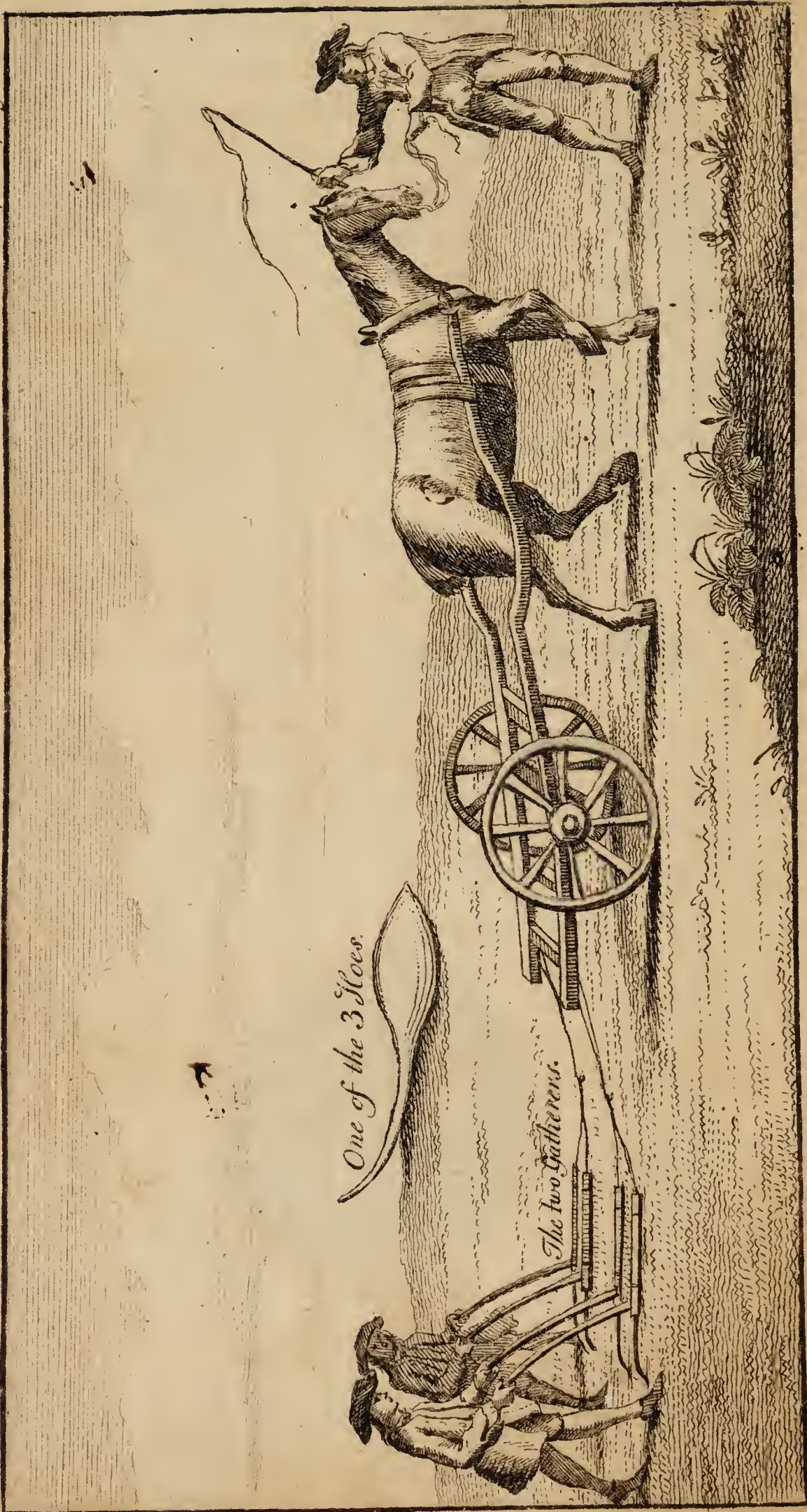
*which the Reader will much better understand both, than he could have done if I had blended our Observations and Directions together. That Part which relates to Gardening, I have not made any Addition to, it appearing to me in every Respect complete: And I cannot help saying, but that I think this as correct, and as useful a Book of Husbandry, as ever was published, and will be found very beneficial to every Person concerned in Husbandry or Gardening.*

William Ellis.









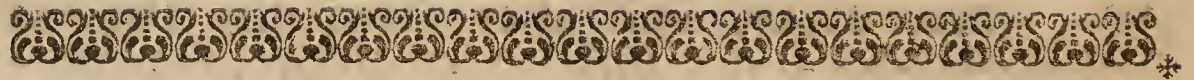
One of the 3 Hoes.

The two Gatherers.



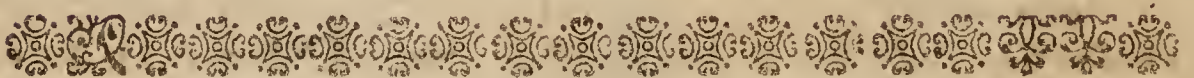
**T**HIS Horse-Break, first by working its three Hoes, and after them the Pair of Gatherers, clears the interval Ground of Drilled Corn, Artificial Grass and Rapes ; and when Grain and Rapes are high enough in the Spring Season. By its Gatherers it lays up interval Earth to their Sides, and thereby becomes a Second Dressing to them, and very much prevents the Damage of long Droughts. Thus this most profitable Instrument, by its Hoes and Gatherers kills Weeds, and with the Four-Wheel light Drill-Plough, improves Crops of the abovesaid Vegetables, beyond all other Sorts of Drill-Ploughs and Horse-Breaks whatsoever. So that by the Operation of these two Machines, and the Assistance of a particular Compound Manure that drops out of the Drill-Plough's Hopper, and may be made to bear rich Crops every Year.

*N. B.* Any Gentleman or Others are welcome to come and see my several Fields of different Grain, sown by the Four-wheel-Drill-Plough, with other Improvements. And have also to acquaint them, That I sell either the Single or Double Four-Wheel-Drill-Plough, Horse-Break, several Sorts of other Ploughs, Harrows, Chaff-Cutting-Boxes, and Others. Likewise, The Fine White Lammas Wheat, much esteemed Yellow Lammas, the Red Lammas *Portugal* and *Turkey* Wheats, &c.



*To make a Compost, or a Manure, to  
dress one Acre of Ground.*

**T**A K E twelve Pounds of Common Salt, one Pound of Salt-Petre in Powder, and mix it with Twenty Bushels of Wood or Coal-Ashes, finely sifted, and sow it over One Acre of Ground, after or before the Seed of Wheat, Barley, Oats, or other Grain, is sown in the Broad-cast Way.







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THE  
 QUINTESSENCE  
 OF  
 AGRICULTURE, &c.

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CHAP. I.

*Of* WHEAT.



WHEAT being counted the best Grain for the Support of Life, I shall begin with it.

First. Sift it well, to take away all the foul Part of the Seeds of the several Weeds, which generally grow among the Corn yearly, by which Means you'll avoid a great Part, which oftentimes grows up and destroys or choaks the young Wheat in its Blade. After 'tis thus sifted, let the Manure be sown on the Land, then harrow the Seed, and that will mix it with the Earth

B

and



and every Shower adds to the dissolving the nitrous Particles, to feed the Earth, in order to prepare what gives Vegetation to the Corn.

The Strength it will gain by this Method, when the Corn is sowed early, will preserve it against the Severity of the Winter; which has been experienced by many Persons. But the Farmers ought always to sow their Wheat early, that is, in the Month of *September*; for if too late, the Frost comes often before the Fibres of the Seeds have taken the proper Hold of the Earth, to preserve itself from the Severity of the Weather, and then it languishes, and turns yellow, as in Course it must when it is check'd in its first shooting forth of its Fibres, which are then tender, and many Times upon a Continuation of a Frost die. So that those who will consult their own Interest must never be late, for thereby many Times their Labour and Seed are lost. When these Directions are followed, and the Ground put in such Order, as every good Husbandman ought to do, (for his own and his Family's Advantage) then he need not fear, by the Blessing of God, to reap a plentiful Crop. But I would advise the Farmer not to starve his Land, by Want of the Seed that he sows, for that may disappoint him at the last; two Bushels and a half is enough for an Acre. There have been very great Crops obtained by this Method.

My Intent in this Treatise is not to swell the Book, by describing the Manner of the Grain, or the Use of it, which so many excellent Authors have already done, but only to discover by what Means a good Encrease may be obtain'd, that every one may enjoy a Part of it; which is the chief Design of this Treatise.

The well ploughing of the Land is a very great Advantage to all Seeds sown, for that gives the Seeds in all kinds a greater Liberty to strike into the Ground, and to fix their small Fibres therein for its Vegetation,  
and



and to prevent the Weather, be Frost or Drought to check it; therefore all Persons should be diligent as to this Point, for Ground cannot be too often ploughed, be it for what Grain soever, and the finer it is made, the more it will produce; therefore the letting Ground lie, as they call it, fallow, without any ploughing for half a Year or more, as in many Places, by letting the Weeds grow to Maturity, must consequently fill the Ground with their Seeds, and so hardens the Ground thereby, that the Dews and Rain cannot penetrate, which the ploughing would prevent to the Husbandman's Profit, if it was used: but Ground though designed for the fallow, may never lie fallow, but made to be of advantage to the Farmer as to the Land, and also in respect to the producing Food for his Cattle, as will be laid down when we come to treat of Turnips.

*A Supplement to the Chapter on WHEAT.*

**M**R. *Trowell*, at the beginning of this Chapter, very justly observes, in the first place, That all Seed Wheat should be sifted to take away all the foul Part of the Seed of Weed, for that in sowing clean Seed, you'll a great Part of these which oftentimes grow up and destroys or choaks the young Wheat in its Blade. This is undeniably true; for he that sows foul Seed, may expect a foul Crop; but of this more hereafter; for I think it necessary, first to take Notice of those Preparations that are requisite to be made for the Reception or Sowing of those Wheat Seeds, which are most agreeable to the Earth they are to be sown in. Here I must take leave to observe, that Mr. *Trowell* expressed himself under a wrong Notion, in saying, Ground cannot be too often plow'd, without exception; for it is well known to those Farmers who occupy sandy, chalky, and gravelly Soils, that



that these hollow Earths may be made Barren, instead of Fertile, and this in a great degree, by too often plowing them. The Reason is palpable; for that these hot, poor, loose, short Gravels and Sands, as well as most Chalks, being Earths that seldom have any hard bottom, sufficient to hold the washing of Dung and Manure; their Quintessences are soon lost, and the more, the oftener such Lands are pulverized by the Plow. This Point of good Husbandry is closely regarded by a knowing Farmer, insomuch that he generally gives a Clay Soil two plowings, when he gives but one to a Gravel, Sand or Chalk. For example, his Clay or stiff Loam, he will be sure to fallow early in *April*, if he conveniently can: That is, to give it the first preparatory Plowing for bringing it into a fine tilth against *September*, or *October* following, to sow it with Wheat, and for this Reason he commonly gives it a fallow and two Stirrees, and sometimes three, before the last plowing of all at sowing Time. But for preparing a Sand, a Gravel or Chalk, he usually begins to fallow in *May*, and gives it but one Stirree before the last Plowing at sowing Time. Hence many Husbandmen and Gardeners have fallen into very prejudicial Mistakes, by such untimely Plowing and Digging these short hollow Grounds, and thereby giving the Rains an Opportunity to wash down the nitrous and finer earthy fertile Parts of their upper Stratum, so as never to be recovered; but the better Sort of Husbandmen, who occupy these loose Earths, within thirty Miles of *London*, of late Years have fell in with a right Management of them, by chopping Woollen Rags small, and sowing them to the Quantity of three or four hundred Weight on an Acre, and at the same Time they sow their Wheat Seed. This done, they, with a Foot, Swing, Patent, Jockey, Turnwrest, or Woodchip Plow, plow both Rags and Wheat Seed in together, in the shallowest Manner possible, and which, either of these Plows will excellently



ly well do, as they have all of them a broad Share; and thus these woollen Rags being of a very tough nature, they lye and rot close to the Wheat Roots, and become a most fertile Manure for two or three, or more Crops of Corn successively, because neither these, nor Hoofs, nor Horn-shavings, nor Cows-hair, will be washed away like short Dung, and powdered Manure, which are to be bought in *London*, as at the cheapest Market.

*How Crops of Grain, &c. may be improved by sowing Manure in the broad Cart Way.*

**F** OUL Salt, mixed with Wood or Coal Ashes, and Mould; of this Comport, sixteen Bushels is enough to sow for a Crop of Wheat, or any other Grain or Grass, &c. to grow on one Store. This I believe to be true, for we know that a small quantity of Salt will go a great Way in dressing of Ground, and as it may be mixt with some Salt-peter Powder, and with Peat, or Lime Ashes, finely sifted; or with screened Sand; this quantity may be well adjusted to nourish any Crop; and undoubtedly will prove an excellent Composition against the Damage of Worms, Slugs and Flies, and greatly nourish any Sort of Vegetable it is discretely applied to; and if it could be afforded for one Shilling a Bushel, it would be the cheapest Manure I know of; for at *Gaddesden, London* Soot often stands us in eleven or twelve Pence a single Bushel, and as we seldom sow less of it than twenty Bushels on an Acre of Corn or Grass, it comes dearer than this manure, though I believe it not so valuable to our Land; for that all Soot I buy from that Metropolis, (and I buy some Scores of Bushels in a Year) I find too much mixed with black Ashes, or otherwise adulterated. Now this Manure is directed to be always sown in the broad Cart-way, as we do Soot,

and in this manner may do very well, provided an agreeable Season of weather follows when it is employed on Barley, and other Summer Crops: But in case a dry time immediately succeeds the sowing of the Manure, and continues for some time, then (if it is a very hot dressing-like Soot) it may burn up the Crop, as we call it in *Hertfordshire*. To prevent which, I shall here discover a perfect new way of sowing this Manure in the greatest Perfection.

*How Manure may be sown out of the light, plain, four-wheel Drill-Plough; in Drills, for improving Crops of Grain, artificial Grass, Rapes, Turneps, &c. in the greatest Perfection.*

—S O O T, Salt, Lime, &c. are such hot corroding Dressing, when sown in the Spring Season on *Lent* Grain and Grass, or in Summer time on Turnep Ground, that if dry hot Weather directly succeeds, and continues some time after their sowing, either of these is very apt to burn up the young Crop of Corn, Turneps, or Grass, instead of nourishing and fertilizing their Growth, as we too often experience when sown in the broad cast way. In this Case, our Money may be laid out to do Damage, instead of bringing in a Profit; as it happened in 1745, when, in most places, Soot did more harm than good. On the contrary, Soot in the wet Spring and Summer of 1746, did us the greatest Service. But to prevent the great Loss that Soot, Lime, or other sulphureous saline Manure might occasion, by being sown broad cast on Corn or Grass Ground; I here propose an entire new way of sowing it, and that is by running it out of the four-wheel Drill-Plough, which so gradually discharges it on the Wheat, Rye, Barley, Oats, Beans, Pease, Turneps, or Rape-seed, &c. that so much, and no more, shall fall on the drilled Seed, at almost  
the



the same time the Seed falls into the Drill ; both which being immediately covered with Mould by the little Harrow, or by the Gatherer ; the Manure in this Position of lying will be so far from burning the seed, that the Moisture of the Earth which invelopes on all Sides, will assuredly cause the Manure to act, force the Seed to vegetate, and bring forward the largest of drilled Crops in the shortest time.

*How a certain Farmer sow'd the great-ear'd Smyrna Wheat, in the common way, and lost most of its Crop ; and how it may be sown out of the four-wheel Drill-Plough, to the greatest Advantage.*

**S**MYRNA Wheat is a Sort that grows in the biggest of Ears, except the *Indian* Sort ; one of which I take to carry more grains in it than two or three Ears of *Lammas* does : And as it grows in such large Ears, it certainly requires the greatest Nourishment that can be given it in a Field. A Neighbour of mine sowed this *Smyrna* Wheat-feed among his common Wheat-feed in the promiscuous or random way, thinking it might thus grow to Advantage ; but the Consequence proved his Mistake, for it did indeed grow into Ears, but they were very little bigger than the *Dugdale* sort, which so discouraged our Farmer, that he never more attempted to sow *Smyrna* Wheat again. For it is certain, that this great ear'd Wheat cannot have Room enough to spread its Roots, and draw a sufficient Nourishment from the Ground to maintain its Growth to the last, when it is sown broad cast, or otherwise, in the common Manner of sowing Wheat. Wherefore I will here show a way that it will grow in the greatest Perfection ; and that is, by sowing it out of the Seed-hopper of the four-wheel Drill-Plough, with some efficacious Manure run out of the Manure-hopper on the Seed. I have seen a whole

B 4

Field



Field of this *Smyrna* or *Turkey* large-ear'd Wheat grow pretty well in Drills, as the Seed was sown out of the Hopper of a Pulley Drill-Plough without Manure. But when the same Wheat is sown in Drills, at a Foot asunder, with Manure, though it be in very poor Land, there will be, with the Blessing of Heaven, a plentiful Return at Harvest; and this, because there is six Inches on each Side of every Drill, of vacant Ground for nourishing of it, that is kept clean from Weeds by the two-wheel Hoe, besides the Assistance of a proper Manure. But these are not all the Advantages belonging to the four-wheel Drill-Plough and wheel Hoe; there are, as I said, several others too long to insert here. As to the steeping Wheat-feed in a Liquid composed by a Mixture of Manure, as Mr. *Trowell* mentions, it may possibly be serviceable, but I dare not advise it: This I know, that Wheat-Seed may be spoiled instead of mended, if infused in too sharp a Liquor too long. The most common way in *Middlesex*, and in some Part of *Hertfordshire*, made use of, is, by putting two, three, or more Bushels of Wheat-feed on the Ground, and after it is well mixed with a very strong Brine by a Shovel, they mix it with powdered Lime, till it is pretty well dried, then sow it the same Morning it is thus prepared. Others swims the Seed first, to take off the light Kernels and Seeds of Weed, and then lime it. But take this for a Warning, never to use intire Urine instead of Brine, as too many have done to their great Loss, for this will eat off the Skin of the Wheat too soon, and prevent the Growth of a regular and plentiful Crop.

*How a foresighted Gentleman sent to this Author for eight Sorts of Seed, &c. in September, 1746.*

**T**HIS Gentleman, who lives about Two Hundred Miles distant from *London*, sent me an Order



Order to send him eight Sorts of Wheat-feed, natural Grass-feed, as the Lady-Finger and Tyne Sorts, &c. &c. as soon as possible; upon which, I directly dispatched their several Prices to him, for his sending me a Bill for the Money, on some Person in *London*, who was to pay the same, when I had delivered the Seeds on Board a Ship lying in the River *Thames*; and all was done accordingly. The Seeds were these that follows, *viz.* Red, White, and the Yellow Lammass Sort. Pickey Wheat, Dame Wheat, and *French* Wheat. But the *Turkey* and white Cone Wheat I could not get time enough, besides which I am to send the same Gentlemen next spring; Rath Ripe, or *Fulham* Barley Seed, and others, for his sowing them in his Land, to increase their Species, and for selling the same hereafter as the best of Seed to his Neighbours, and about the Country he lives in; for this Gentleman writes me, that he and his Brother occupies seven hundred a Year in Land. Now to account for this Person's wise Conduct, I have to offer as follows, *viz.* In some of my former Works, I intimated, that I can furnish Gentlemen with Wheat-Seed, &c. from off various Soils for sowing them in their contrary Sorts; for that, it is not only making use of a change of Seed for their greater Improvement, but a due Regard should be likewise had to the Soil the Seeds come from, because on this greatly depends the great Increase and good Quality of their Crops, even more than most persons are aware of. And to shew how much this Gentleman was in the right in sending to me, for his Wheat-feed in particular, I shall do it by acquainting my Reader, that I live within nine Miles of *Salisbury-Market*, where is sold the true Maiden Wheat-feed, so called for being that which comes off new broken-up natural Grass-Ground, and saved by Men who make it their Business to get such for-Sale Seed, free of Smut, and from the Trumpery of Weedy Seeds. Now as the Land from which such Wheat is taken, is a stiff, blackish,



blackish, loamy sort, it will excellently well agree with chalky, sandy, gravelly, and dry, short, loamy Ground. I also live seven Miles from *Leighton* Market, where much Wheat-seed is sold from sandy Loams; and five Miles from *Dunstable*, chalky Loams, and within two Miles of gravelly Loams. These furnish the most properest Wheat-seed that can be sown on stiffish Soils. As to my own fifteen enclosed Fields, and those of my Neighbours, they are, for the most Part, composed of mixed Earth, and therefore such a true Sort of Wheat-seed cannot be had from them, as from off an entire Soil. The same Reasons stand good on Account of Rathripe and Sprat Barley-seed, Thetches, and other Grain. The Rathripe indeed must come always off a sandy Loam, as that particular sort is at *Fulham*, where they call it a Lively Earth, because by it the early growing Quality is lodged in this sort; and a valuable one it is; for that the Barley-seed coming off this Ground, may be sown late with Safety, and mowed soon: Wherefore those Farmers and Gentlemen that live in the Northern Parts of *England*, and in *Wales*, and in *Scotland*, that have an Opportunity to receive such Barley by Sea Carriage, should not be without this Rathripe sort, and the rather, as it would come cheaper to them in *Scotland* by Water, than to us at *Gaddesden* by Land Carriage, although we do not live quite forty Miles from it. And the great Benefit of mowing Barley Crops early, is well known to most Farmers, as it gives them an Opportunity to get their Crops into the Barn early, and its Kernels with a thin skin and white dry Body, for making the best of pale-coloured Malts, and selling for the largest Price. So likewise is Sprat valuable for its reedy strong Straw that supports its Ears erect, and keeps them so, when the common Sort falls flat; by which the greatest Crops are got off first, while the latter returns little more than the Seed it grew from. These and some other Reasons induced the Gentleman I am writing of, to send to me for the

Rathripe



Rathripe Sort, and others for the Sprat Sort: As he lives Northward, for by this his prudential Conduct, he stands a good Chance of getting his Crops of Barley in safe and sound, when his Neighbours may be spoiled by mowing them later, and having them damaged by long and great Rains.



## C H A P. II.

## Of R Y E.

**T**HIS being the next hard Seed, should also be sown early in *September*, to have a Produce to satisfy the laborious Farmer for the Pains that he takes to bring his Ground in order to receive each proper Seed; therefore the Seed must be used as the other, being first sifted, but it does not require so long soaking with the Manure Liquor; about six Hours will be sufficient, for 'tis in Nature more moist than the Wheat, and therefore will agree with lighter Land. The sowing of it early is for the same Reason as Wheat is, in order to get a sufficient Root to maintain itself against the Winter Season; and the Ground may be manur'd in the same Manner as before, and harrowed either before the Seed is sown, or after, as the Farmer, &c. thinks fit, for either way will promote Vegetation when the Rains come, which we always expect at that Season of the Year, viz. *September*; but this and all Corn should be properly sown in dry Weather, and not wet, by reason the Seed might receive more Damage thereby than some Persons may imagine; for any Grain lying a little in the Earth before it is wetted by Rain, prepares it gradually for Vegetation, and it does always prove a more certain Crop, than when the Wet falls too soon,



soon, which sometimes swells the Seed so much, that before the vegetative Part is prepared, the Seed is decaying in its first productive Part, by its over Moisture. This Caution is also to be observed in almost all the other Sorts of Seeds, for Field or Garden, except the Aquaticks, which delight in the moister Ground and Seasons; and is only hinted to the diligent and industrious Husbandman, by common Observations and Reason, that he may learn how to produce a good Crop of all Kinds; for all wish it, though many miss it, either by neglect of Time, or by not being good and diligent Husbards in the improving the Ground. But if Gentlemen and Farmers would have Carts or Tubs, like those with which they water the Streets of *London*, one Cart with one Horse and a Boy would water any Ground so well as to make full Amends for the want of ploughing it; and should they water with the Soak of a Dunghill, 'twill be of great Service to them, being a very good Sort of Manure, and a fine moistening to the Land.

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*A Supplement to the Chapter on RYE.*

*How Rye may be cleansed from its smallest Kernels, and from Seed of Weeds, and other Trumpery, for obtaining the best Rye Seed.*

**M**R. *Trowell* well observes in all his Chapters on Grain, that it is a very material Point of good Husbandry, to cleanse Seed by sifting it. Of this Article I shall give a better Account than any Author has done before me, in my next Supplement on Barley. In this I have only to say, that after the Rye-feed has passed the Splinter-sieves and the long Wire-screen, the Brass Hand-wire-sieves will discharge the smallest Rye Kernels, by separating them from the larger Sort; and when the largest Kernels are thus selected, it becomes the



the most profitable Seed ; for when the smaller Seed is sown with the larger, it often times deceives its Owner, as not having a sufficient Body or Fund of Flower, to maintain its Roots against the Severity of Frosts, cold Winds, and Wets.

*Why Rye-seed will not endure a Preparation for sowing by infusing it in any Liquor.*

**W**HATEVER I, or any other Author, have said, in recommending the Infusion of Rye-seed, by way of preparing it for sowing, is wrong ; because this grain is of so warm, tender, and dry a nature, that it will by no means endure a steeping in any Liquor whatsoever ; nor is such its tender nature capable of resisting the Chills of Wets in cold stiff Lands, like Wheat, and some other Grain ; nor should it be sown in a wet Day, nor late ; for even present Showers are very apt to destroy it, as they sometimes do a more hardy sort, by bursting the Seed before it can get into a safe Condition of growth, by a gradual Vegetation. Therefore Mr. Trowell is wrong in directing the steeping Rye-seed in a liquid Preparation of Manure.

*The Profit of sowing Rye and Manure out of the Four-wheel Drill-Plough.*

**H**APPY for thousands who are Owners of very dry, loamy, and gravelly and sandy Ground, that kind Providence has provided such a Grain as Rye, else these Earths must have been deprived of bearing a Bread-corn ; for Wheat is too moist and rich a Grain to agree with such dry, loose, poor Soils. Now to improve these, where, a Sand is stiff enough to stand and give time for the Rye-seed and Manure to run out of the Hoppers of the four-wheel Drill-Plough, before this  
light

light Earth falls in upon them, it may be made to produce very large Crops of this Grain, by this sowing a clean large Rye-feed in Drills, at six, or at eight Inches, or at a Foot asunder; and this Method of sowing the Seed and dressing the Ground, must be the best of all others, as it causes both to lie in such a covered Depth of Earth, as secures it against the Damage of Frosts, cold Winds, Wets, and Droughts; and because it gives Farmers an Opportunity to sow the interval clean-hoed Ground every *September*, with more fresh Rye-feed for another Crop; and thus they may proceed, Year after Year, for many Years together, without making any other Fallow or Ploughing for a Rye Crop, than by keeping the interval loose Earth clear, by the most excellent new-invented Wheel-hoe: so in gravelly Soils, where Stones are not too big, nor lie too thick, this profitable way of sowing Rye-feed will answer the same beneficial End: But I don't say, that this four-wheel Drill-Plough can be properly used where it meets with an Opposition of Stones, or a hard rough Earth; no, for all Ground must be in a very fine Tilth, where this plain light Plough is made use of to outdo all other ways of sowing and dressing Land. Here a good Manure may be of excellent Service in securing the Seed and its Roots from the Spoil of Worms and other Insects, and greatly nourish the Crop of Rye till Harvest, if sown out of this four-wheel Drill-plough; and thus many Amendments may be made use of to a good Purpose.

*The great Profit attending the Use of a new-invented excellent Wheel-hoe, for encreasing Crops of Rye.*

ALL Authors whatsoever, to this Day, have misfed writing in particular on a certain Weed, called in one Place, the wild Marygold, in another Gould, in another Yellow Bottle, and in another Boswel different from



from these, that so infects most sandy Grounds, that wherever it grows amongst a Crop of Rye, or other Grain, it surely does it harm, and where it grows in Plenty, it kills most of the Crop. So in light red Earth, such as I have seen near the County Town of *Chelmsford* in *Essex*, it does the same harm. In short, this horrid tall Weed is the Farmer's chief Curse in sandy Soils. I have seen a very large Field so over-run with it, that there seemed to me to be as much Gould as Barley. For keeping it down, they sow Turneps, and hoe them, and sometimes artificial Grasses, but mostly Rye, because this over-tops it, and checks its predominant Growth; yet in a wet Year especially, it is apt to master Rye, and all other Crops; and what adds to this Misfortune is, that the Farmer despairs of ever destroying it. Now this two-wheel Hoe is so contrived, as to tear and loosen the Earth between the Drills in such a manner, that at every Operation it performs much towards killing this ugly Weed, and all others, even in its very Roots, which so single plain Hand-hoe can near so well do, because they only work very little lower than the bare surface of the Ground; but this Instrument going much deeper, will in a little time effectually eradicate them. This 8th Day of *August*, 1746. I know of but one such contrived two-wheel Hoe; for the Make of this is different from all the two-wheel Horse-breaks ever yet made, and is of such great Use, as to be of the greatest Service for cleaning the Interspaces or Intervals between drilled Rows of Wheat, Rye, Barley, Oats, Pease, Beans, Vetches, Turneps, Rapes, St. Foyn, and Lucern Grasses, &c. And what is more than ordinary valuable in the Operation of this Wheel-hoe, it cleans two Intervals at one Draught, by one Man's drawing it before, and by another Man's Help who holds its two Handles, and pushes it on behind, when it is employed to hoe the Intervals of Wheat, Barley, Rye, Oats, Turneps, Rapes, St. Foyn, and Lucern Grasses, &c. But when it is employed to hoe the Inter-  
vals



vals between Pease and Beans, then a Horse is put in to work it, by reason these Pulses are sown in wide Drills at a greater Distance than any other are ; but of late we use a Horse instead of a Man. In short, this Wheel-hoe is such a profitable Machine, that I believe I may affirm it for Truth, it is worth the while of many to give a hundred Pounds for it, rather than be without it, where the Land is a chalky, sandy, or light loamy dry Ground, and they hold enough of it in their own Hands ; and this great Improvement it may surely perform, with the Help of the four-wheel Drill-plough, viz. by causing poor Earths to bear the richest Crops, and therefore it is absolutely necessary for both these Instruments to accompany each other, as their Operations are closely united to serve the Gentleman and Farmer's Interest. But of this profitable Wheel-hoe I intend to give a more particular Account, in my Monthly Supplement to the *Modern Husbandman*, Price *Eighteen-pence*, to which a Cut of it will be affixed for the better Satisfaction of Readers, and have here to say only, that the sooner Wheat or Rye is sown, the less Seed is wanted ; because then it has Time to gather Branch, and get a Cover to their Roots against Winter : But the stiffer the Land, the more must be sown. Wherefore when stiff Land is sown with Wheat in *September*, two, or two Bushels and a half, is enough to be sown on one Acre of Rye in Sand, Gravel, or other short dry Earths. One Bushel, a Bushel and a half, or two Bushels, is enough to harrow on one Acre in *September*. To this I add a Remark that has slipt the Pen of all others, which is, that by thus early sowing Wheat or Rye, they will run so fast into green Blades, that the Worm, Grub, nor Slug can't have Time nor Power to gnaw and spoil their first Infant Shoots, as when these Grains are sown late in *October*. But it is best to sow some early and some late, because if Wheat or Rye should be hurt by being sown very early, and thereby become Winter-proud, the last Season will secure them against this Danger.



## C H A P. III.

## Of O A T S.

O A T S are a Seed which require neither the steeping or soaking in the Manure as the others before named ; but if the same Method was used in the sifting this Seed, and the putting it into some of the liquid Manure, to take off the light chaffy Seed, but not to let it lie in the Liquid any longer than in doing it, it would save the Farmer some Trouble, and prevent the Crop being choaked with Weeds. The Trouble is but small, in regard the Benefit is so great ; then mix the Seed with some of the Manure before 'tis quite dry, to prevent Vermin destroying it, especially the Field Mouse, who loves this Grain more than any other. After the Gentleman or Farmer has sifted this, or any other Sort of Grain, and cleared it from the weedy Seeds, let him not neglect, either by himself, Farmer or Servants, to keep such weedy Seeds from being swept to the Dung-hill ; for from thence 'tis carried on the Land, and the Weeds propagated thereby, as many Farmers have confessed to be so done by their own Neglect, and want of Thought. The best Method is, to leave these weedy Seeds to be devoured by the Poultry, Pigeons, and Hogs ; and the same Method may be put in Practice by the Horse-keepers when they sift Chaff. The Consequence of which is, that if there is but few or no Weeds in the Corn, the same may be carried into the Barn sooner, and then it need not lie so long exposed to accidental Weather, in order to dry the Weeds. See the Letter at the End of this Book, from *Daniel Dodson Esq;* of *Chestnut* in *Hertfordshire*.

*A Supplement to the Chapter on O A T S.**Why Oats best agree with Chiltern Land, and least with Vale Land.*

**O** A T S are a Grain that best agrees with lean Chiltern Ground, and least with rich Vale Earths; because in Vales the Earth is generally of a black or bluish Colour, and of a marly Nature, and so rich, that they are afraid to sow Oats, lest they run into much Straw and little Corn. This is one Reason for their not sowing Oats here. The next Reason for their not sowing Oats is, that they think a Crop of Oats draws more of the Earth's Goodness to nourish them, than other Corn does. But in Chiltern Land, this Grain is sown in common, because it grows pretty well sometimes in a rough Tith, and in a poor Earth, and on only one ploughing. Yet here this Practice is oftentimes carried into a pernicious Extreme; for when this Seed is sown in a very poor rough Soil, and a dry Summer succeeds, the Farmer generally comes off bad, by having perhaps no more than two Quarters of Oats on one Acre; when another, that ploughs twice, and keeps his Ground in good Heart, has five or six Quarters; but he that ploughs twice or thrice, and keeps his Ground in good Heart, by dressing it well the same Spring-time he sows his Oats, gets sometimes seven or eight Quarters of Oats, or more, off an Acre in a wet Summer, as Mr. Trowell has made known by the Case of *Daniel Dodson, Esq;* at the End of this Book. When I travelled in Part of the West Country, in the Year 1737, I lay one Night at *Buttermere*, a small Village, about ten Miles distant from *Newbury* in *Berkshire*, where a young Man took a large Farm, that employed eight or nine Horses, and having just received a Portion with his Wife, was enabled to manage this Farm. But so it was, that this young Man was soon obliged to quit it, by the Losses he sustained in having thin Crops of Corn, instead of full ones. One of his Losses was occasioned



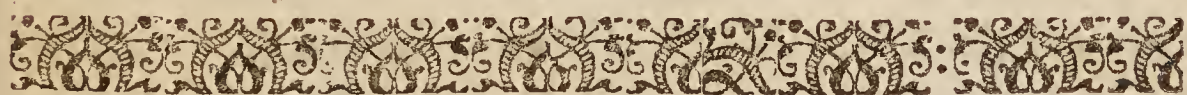
occasioned thus. Part of this Farm consisted of a chalky lean Soil, situated on a high Hill: This he sowed with black Oats; on only one ploughing, without any Dressing or Amendment: A dry Summer succeeding, the Oat-Crop was set, and became so stunted, that they were not worth standing till Harvest. Upon this, he thought it most to his Profit to feed his Horses with this green Oat-Crop, and feed them he did instead of Grass, though they grew on forty Acres of Ground. Now to remark on this Case, I have to say, that if this young Beginner had got his chalky Land, by antecedent Ploughing, into a fine Tilth, and sowed his Oats out of this four-wheel Drill-plough, with a proper Manure on them, it is more than probable he would have had a Crop of 4 or 5 Quarters of Oats on an Acre, if he had drilled them in, in Drills at a foot asunder, and had timely employed the Wheel-hoe. But if he had sown his Oats in Drills, at nine Inches Distance from each other, and made use of the Wheel-hoe accordingly, he might, perhaps, have had seven or eight Quarters of Oats on an Acre. Or he might have had a good Crop of Oats, if he had drilled them in in Drills, six Inches asunder, and sown the whole Ground with Clover, or Treyfoyle, or both, in a Mixture, to a very great Advantage. But in this last Management, there is no Occasion to make Use of the Wheel-hoe, because the Grass-Seeds are to be sown immediately after the Corn is drilled, and harrowed into the Ground as if no Corn had been drilled. This new Piece of Husbandry had he known and practised, must have consequently saved him from Breaking, and enabled him to have paid his Rent many Years: but as he fed his poor Crop of Oats as Grass, they might not pay him the Value of more than one Quarter of Oats on an Acre. However, as it was, both Tenant and Landlord suffered; the Tenant by Breaking, and the Landlord by being forced to take his large Farm into his Hands, that, as I remember, employed nine Horses, to his great Disadvantage; for

he was forced to employ Persons to manage it in his Absence, as he lived at a distant Part. Here a good Manure might have done Wonders ; foul Salt, mixed with rotten Dung and Mould, and screened fine, might have also answered, if sown on the Oat-feed, out of the Bushel-hopper of the four-wheel Drill-plough. Or if *Newbury* Peat-ashes had been thus sown alone on them, they, very probable, would have produced a very bulky Crop at Harvest ; for this large Town and Peat Ground lies but ten Miles distant from *Buttermere*, and at which this young Farmer sold all his Grain, so that he might have brought these excellent fertile Ashes home for a trifle Charge, the Quantity of which is but ten Bushels on an Acre, at Eight-pence a Bushel ; and have here only to add, that there is a Sort of black Oat, that will so well agree with chalky, loamy, and other Land, as to sell for more Money at Market than any other Oat, because of their plump short Body, for which Reason they are called Sparrow-bill Oats, which I furnish to any Gentleman on a proper Order, for sowing and encreasing their Species in their own Country. A Method, the cheapest of all others, to come by the best of Grain ; for by being at a little Expence at first, a Person may insure to himself the Sort for many Years, to his great Advantage. And I have the Pleasure to write, that several Gentlemen of late have taken such Hints from my former Works, as to send to me for various Field-Seeds, the extraordinary Profit of which they had no Notion of before ; and sure it is, that Thousands, every Year, suffer extreme Losses, for want of changing their Seed, and getting into a right Sort.

I have just now received a Letter from a Gentleman, (Post-paid) dated 29 *July*, 1746, desiring me to send him a particular Sort of bearded Wheat for Seed, because, as he says, he lives in a Part of the Country that subjects their white and red Lammas Wheat to Blights and Strokes, which sometimes causes their Crops to yield about half a due Quantity ; for it is the Nature of  
many



many Situations, as well as Soils, to produce this Evil; but it is entirely prevented by sowing the Seed of bearded Wheat, that keeps off Mildews from hurting the Kernels. But as I have enlarged on this Subject in my *Modern Husbandman*, I shall say no more of it here, than that in my Supplement I intend to publish the Copy of this Gentleman's instructive Letter, which I have not room to do here; and now further add, that in our Chiltern inclosed Country in *Hertfordshire*, hardly any Farmer dungs their Land for an Oat-Crop, nor give it above one ploughing for it, and that is commonly done in *November*, as soon as we have done sowing our Wheat, and let it lie thus till *February*, when we give it only a Harrowing in our Oat-Seed, to the Quantity of three, or (better) four Bushels on an Acre. But he that ploughs his Oat-Land twice, and dungs beside, acts the true Husbandman, for then he may harrow in twelve Pounds of Clover-Seed, or two Bushels of Treyfoyle-Seed, in its black Hull, on each Acre; as is often done also on Land thus prepared for Barley. And under this very Management I had this Harvest, 1746, eight large Cart Loads of Oats from off only two Acres of loamy Ground, that was sowed with Clover and Treyfoyle-Seed in a Mixture, when I sowed my Oats, the Quantity of which were ten Pounds of Clover-Seed, and one Bushel of Treyfoyle-Seed in its Hulls on each Acre.



## C H A P. IV.

## Of B A R L E Y.

**B**ARLEY is a Grain of great Use and Profit, in respect to its Production of Beer, Ale and Spirits, which occasions a larger Consumption of it than of any

other Grain ; therefore to encrease the Produce of it, will prove of no small Service to the Public.

First, Do not omit sifting the Grain before it is sown, then put it into some of the Manure-liquor, as before ; but let not it lie in the Liquor above six Hours, then take it out and before it is quite dry, sift some Manure over it, and mix it well together, which will prevent its being devoured by Birds and Vermin ; when it is sowed, harrow it well, the Ground being prepared either before or after with the Manure, and the first Rains will let you see the Advantage you'll enjoy by this small Labour and Expence. Now as to the Time of sowing this Seed, great Regard must be had to the Soil, which is heavier or lighter, as loomy, gravelly, or sandy. The usual Seed-time is from *March* to *May*, as the Country lies to its Situation, and the Nature of the Land : However, I think, for divers Reasons herein before given, that *May* is too late.

Be pleased to observe, in the next Place, that as there is a prodigious Quantity of this Grain malted for Beer, Ale, and Spirits ; so it will prove of no small Service to the Person who malts it, to preserve the Liquor which the Barley is soaked in : For if that Liquor was saved in order to brew with it, it would save one Bushel of Malt in eight, and the Drink be much stronger and better ; and supposing the Maltster not ready for brewing, he might oblige some of his poor Neighbours with it, who would be very thankful for it, when they come to know that, with a little Addition of Malt, it would make good Small Beer ; for it has been experienced, that this Liquor is impregnated with an unwholesome Spirit.

*A Supplement to the Chapter on BARLEY.*

**M**R. Trowell is likewise very right in the Precaution he gives in this Chapter, of not omitting to  
sift



sift the Grain for sowing ; for if Darnell, and other weedy Seeds, are sown with the Barley, the Crop will be foul, and sell for less Money ; and therefore my excellent cleansing hand Wire-sieve, that I sell for Half a Guinea, will, after Barley has passed through the Barley-ridder, Splinter-sieve, and great tall Wire-screen ; clean it further, by discharging the small light, thin Kernels, from the more bulky ones, and thereby a large delicate clean Seed may be selected, that consequently will produce a large sort of Barley, and a great Crop of it, if the Land is rightly prepared, and the Seed sown in a dry Time : Wherefore no Gentleman nor Farmer should be without this Sieve, that sows Wheat and Barley. To this I must take Notice of another Improvement, which is, that if Gentlemen would be at a small Expence to have some Rathripe Barley-feed sent them, for sowing it in gravely, chalky, or dry Loamy Ground, they would find no little Benefit by it in the Goodness of the first, second, and third Crops of it ; for though it is a thin bodied Corn when sown, yet in a stiffer Soil than the Livery light Earth it came from, it will become a knotty, plump, short Kernel, with a thin Skin full of Flower, that will make the best of Malt, insomuch that a Crop of such Barley generally sells for two Shillings a Quarter more than the common Sort. It is these profitable Qualities that makes our *Hertfordshire* Farmers not grudge the Charge of sending thirty Miles an end for this very sort of Barley-feed, whose Virtues will last three or four Crops well, but afterwards degenerate, and in Time grow into the same common sort of the Country. In the next Place, I shall remark on Mr. *Trowell's* Directions to steep Barley-feed in a Liquor made with a Manure, which may be done, for ought I know, to a good Purpose ; but yet I cannot help being suspicious of its Success, because he allows the Barley-feed to steep only six hours. In Answer to this, I have to say, that if such a short Time of steeping the Barley-Seed will improve the

Crop as he has hinted, then I am sure his Liquor, or Lee, must be made prodigious strong indeed. For as I am the first that published the famous Saltpetre Liquor for steeping Barley-Seed, I shall here give my Reader some Account of it, that he may see the Management of both. My Receipt runs to this Effect. We make about two Gallons of Water scalding hot, and put into it three Pounds of Salt-petre, which, on stirring, will presently dissolve in it: This is to stand till it is little more than Blood-warm: In the mean time, a Tapwips, and Tap or Cock should be put into an open Tub, with three Bushels of Barley-Seed: Then the warm Salt-petre Liquor is to be put over all of it, and let to stand about half an Hour covered with Blanket, or other other Cloaths; at the End of which Time there must be so much black Dunghill Water put into the Tub, as will swim six Inches above the Barley. Thus all must lie together twenty-four Hours; at the End of which, the Liquor must be drawn off, and the Barley put on the Ground to be mixed with powdered Lime by a Shovel, and in one Hours Time after it is thus mixed, it will be fit to sow. Broad Cast, and, if a dry Time, should directly succeed the sowing, and hold so two Months together, there will be a fine Crop, provided the Ground was in a fine Tilth Condition and well manured; then where only this three Bushels of steeped Barley is sown Broad Cast on one Acre, an Owner has no Reason to doubt but he will have seven Quarters for it at Harvest in return; for this Liquor is of so fertile a Nature, that I have had above thirty Stalks from one Kernel; and therefore it is, that we are obliged to sow no more than three Bushels on one Acre Broad Cast, to allow for its gathering and branching. Thus a most even Crop of Barley may be obtained of all one Ripeness, which can't be said of any Crop growing from dry Seed, the great Benefit of which is well known to all Malsters, for it is such even growing Barley that  
makes



makes the best of Malt, because it will sprout in the most regular Condition, even near all at once on the green Couch. And it is a just Observation of Mr. *Trowell*, that if the Water wherein Barley is soaked in the Cistern, be made the first hot Liquor for Brewing, it will save one Bushel of Malt in 8; so if the *Thames* Water, taken up at any Part of the City of *London*, will do the same, surely the Barley Water will do it better. The best way of sowing Barley is in Drills, out of the four-wheel Drill-Plough, where the Land is free from large Stones, and in a fine Tilth, be it a Clay, a Gravel, a Chalk, a Sand, or a Loam, because this Plow sows Manures on the Seed that secures it better in the Drill from Field Fowls, Mice, Worms, and Slugs, than when it is sowed in any other Form whatsoever, and that nourishes a Crop of Barley in the highest Perfection, by the help of the two-wheel Hoe, that clears the Intervals of Weeds in the most effectual, and in the cheapest Manner possible, according to my Opinion. The first Barley Crop I ever sowed in Drills out of the four-wheel Drill-plow, was in *May* 1746, and altho' it grew in a flat, whettish, loamy Soil, yet it made so fine an Appearance, as highly pleased all Beholders.

*N. B.* I sow an excellent sort of Barley called Sprat-barley. This, as well as the Rathripe sort, makes the best of Malt, but Sprat-barley has these peculiar Virtues belonging to it, that none other sort of Barley has. Its strong Straw or Stalks will stand erect, when others fall down, and therefore it is the most profitable sort to sow in rich, marshy and fenny Grounds, or in any other Land that is very fertile; for in such, it has yielded eleven Quarters on one Acre, as has been experienced in some of those Marshes lying below *Woolwich* in *Kent*; not but that it will grow well in dry Loams, gravelly Loams, and chalky Loams, as we, in our Parts of *Hertfordshire*, annually experience. This Sprat-barley Seed, as well as the Rathripe Sort, I furnish to any Gentleman on a proper Order.

Order. *Note*, the Rathripe Barley is a very proper Sort to sow in the North, for the Sake of its early Ripeness. It has been in and out of the Ground in ten Weeks time. Barley Ground ought to be well plowed two or three times, to get it into a fine Tilth, and well dressed with Stable Dung, or with the Fold, or with a Manure, and then sown in *February* or *March*, with four Bushels of dry Seed on an Acre, with or without Clover or Treyfoyle Grass Seeds, in the broad cast-way of sowing, and harrowed in, whether it be the Rathripe, the Sprat, or the common sort of Barley.



## C H A P. V.

*Of PEASE, and the several Sorts of Pulse.*

**P**EASE do not require the soaking in the Manure Liquor ; for when they are soaked and the Skin burst, the Pulp of the Pease is so soft and tender, that the Seed would be destroyed thereby ; however, Sifting is necessary in all Seeds, for there will be small weedy Seeds in all Grain, which being sown together, grow up and choak the Grain ; so that Pease are often annoyed with small wild Tares.

The common Method of sowing Pease is by Casting ; but, for the Benefit of the Farmer, rilling is best ; though many Persons chuse the Charge of setting them with a Dibber about a Yard long, and set with Teeth about 4 or 5 Inches deep, and an Inch asunder : This is a very laborious Way, and double the Charge of rilling, which is soon done by the running the Plough lightly thro' the Furrows, and followed by a Boy, who may cast the Pease into the Furrow, not too thick nor thin ; then let another Boy follow the former, and fill up the Furrow with



with his Hand or Hoe. When the Rill is filled up, then let one of the Boys cast some of the Manure on each Side of the Furrow ; the doing of which will prevent all Snails, Slugs, or other Vermin from eating the young, and tender Shoots at the first appearing, as is many times done by a whole Field, which is often devoured by these and other Insects.

Then if you cast your Pease by the Hand, you may sow the Manure first ; after that sow your Pease, then harrow the Ground well, which mixes the Manure with the Ground ; but I take it, that rilling of the Ground, about a Foot or more distance, will be found the securest and best Way to preserve them from the Fowls, that hunt after this Grain more than any other, as Hens, Pigeons, Crows, &c. also that then when they are up, you may hoe them, by which it will add a new Vigour to the Root, to make them haulm and blossom better ; and by this sowing the Manure of each Side of the Rills, will be a sufficient Supply to the Roots of the Pease to support its Vegetation to their full Growth ; and 'tis the same in the Garden, where the like doth happen. Therefore if the same Way of rilling is used in all the several Species of Pease, you may always depend, if the Season permits, on having a very good Crop ; and 'tis the same in any other Sorts of Pulse, as Tares, Fetches, Lentills, Lupines, &c.

I remember that a very good Gardener advised to have a Field sowed with the Everlasting Pea, and not to let any Cattle eat it the first Year ; the 2d Year you may let Sheep and Lambs eat of it, and after 'tis eat down, let it rest about three Weeks or a Month, it will be Food again, and will give a Food to Ewes, and add to their Milk, being a very luxuriant Juice, when fresh and green ; for after it hath taken Roots, 'twill last many Years, without any fresh sowing or setting ; and if you let it flower, 'twill produce a great Quantity of Seed to supply other Parts.

And the like of a Gentleman in the *New Forest* in *Hampshire* ; who having sowed a Field with Parsley, he told me it did more Service to his Sheep and Lambs, than twice that Quantity of Ground in any other Grass.

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*A Supplement to the Chapter on PEASE.*

**M**R. *Trowell* is truly right in saying Pease are an improper Pulse to steep for sowing, for that such steeping would cause them to burst before they could vegetate, and this is sometimes their case, even when sown without steeping, by means of heavy successive showers of Rain that fall directly after their sowing ; as was the Case with both Pease, Horse-beans, and Garden-beans, in the cold chilly Season of 1746, which caused thousand of Acres of them to be lost, by their bursting and rotting in the Ground, insomuch that many Farmers and Gardeners were obliged to plow and re-sow their Land again with these Seeds. But this is not so general a Rule, but that there is Room for an Exception.

What Mr. *Trowell* mentions of rilling Pease to be the best way of sowing them, is certainly true ; tho' it be in the chargeable uneven way of sowing them by the common Plough and a Boy's Hand, which never sow them so exact, as they may be done by the four wheel light Drill Plough, nor near so profitable. The sowing Pease thus by the common Plough, is done by a Ploughman, a Driver, a Boy to sow, and another to fill in the Furrow, besides a Sewer of the Manure, which are five Persons in all. Now I will in short shew the Difference between the Management of one and the other, in the Work of only one Day.



By the common Plough a Sower of Manure is generally employed a Day to sow it Broad-Cast on an Acre of Ground	— — — — —	0	1	0
Plowman and Driver	— — — — —	0	1	9
Two Boys a Day, according to Mr. Trowell	— — — — —	0	1	6
Keeping of two Horses a Day, and their Use	— — — — —	0	4	0
		<hr/>		
		0	8	3

By the four-wheel Drill-plough, one little Horse draws it, and a Man guides it, with a Boy Driver, sows an Acre and half of Pease in Drills in one Day, with Manure, and covers all as the Plough goes

— — — — — 0 3 9

Total saved 0 4 6

But this is only part of the Expence saved in a Pea Crop, sown out of the four-wheel Drill-plough; for there is as much more to be saved in hoeing one Acre of Pea Ground with the two-wheel Hoe, than there is by this Drill-plough. There are several Ways practised in sowing of Pease in Fields; but I shall mention only one, because it is a new Method, and comes nearest to the Drill-plough Management for Cheapness and Expedition. In a certain Part of *Hertfordshire*, they make use of a two-wheel common Plough for this purpose, with which the Farmer makes a single sharp Bout of Earth, and so proceeds, till part, or the whole inclosed Field is thus plowed. Then a Seedsman sows his Pease out of a Seed Cot, by his Hand, in the broad-cast Mode of Sowing, and they will most of them fall into the Furrow between the Bouts. When this is done, they harrow the

the Bouts all plain, and the Work is finished till Hoeing begins.

In this Chapter Mr. *Trowell* makes mention of no other Pease than the Everlasting Sort, to be eaten by Cattle as Grass, and is very right as to this Pea; for it is a valuable Sort, and more is sown of it in the West Country, than, I believe, in all *England* besides. But to supply this, I shall take Notice of some of the best of Field Pease, all which I sow myself, and they are the great Blue Union, the Double Maple, the White Non-parrel, the most hardy Horn Grey, and the Carolina large Pease. The Blue Union is well known in *Middlesex*, to be a very good Garden, as well as Field Pea; the Double Maple the same. The Nonparel and Carolina are both excellent Sorts, for these all are fine Boilers, green out of their Pods, and very valuable when full ripe, for Winter Service, to make Pease-pudding, Soups or Porridge, or to eat with Bacon or Pork. But the Horn Grey is a contrary Sort, as being only fit to feed Hogs, Sheep, Deer, or Horses with; but their greatest Profit consists in their extreme hardy Nature, and great Yield; for this Pea must be sown in *December* or *January*, otherwise they are apt to run into much Straw or Haulm, and little Corn. These Pease I furnish to any Gentleman on a proper Order.

*N. B.* This hardy Horn Grey Pea is of a good Size; its Straw will not gripe a Horse, like other Pea Straw, and is a most proper Sort to be sown in the Northern Countries, on any Sort of Land.

In this Chapter Mr. *Trowell* also tells us of a Gentleman that sowed a Field with Parsley, that proved of great Advantage to his Sheep and Lambs; and no wonder it is so, since it is a warm, dry, wholesome, palatable Vegetable, that prevents the Breed of the White and Red Water and Rot in Sheep, and fats them expeditiously, and will last more than one Year. These fine Qualities has tempted  
more



more than this Gentleman to propagate Parsley in a Field, to be fed by Sheep and Lambs, and answers the desired End ; for a full Parsley Crop will do near as much Service to the Ground as a Clover Crop, by its large Cover, and its Roots, that will in two Years time get large enough to become a small Dressing to the Land. But I should have mentioned the Double broad Plough for using it to make a Bout at once going, and thus saves much Time and Labour, and this either of the Foot or Wheel Sort ; for I do assure Gentlemen, that this Plough will do great Services, on several Accounts, in Land that is not too wet and too stony ; insomuch that I am persuaded many would send to me for this Plough if they were sensible of the several Advantages belonging to its Uses. In *Hertfordshire* we never dung for a Pea Crop, lest we cause the Pease to grow too rank ; nor seldom plow above once ; but he that plows his Field Land twice, does better ; for Pease should be sown in a hollow Earth. *March* is the chief Month to sow Pease. In stiff Land we sow four or five Bushels of Hog-pease on an Acre. In lighter Land three or four. There are several Shapes to propagate Pease in. Some throw the Seed out of the Hand, which we call sproining them, in every Furrow, and cover them by the Turn of every other Furrow. Others sow them broad-cast, and either plow or harrow them in. Others set them in Rows with Wooden Teeth. But the very best Way is to sow Pease of any Sort out of the four-wheel Drill-Plough, and break or hoe the Interval two or three times in the Spring and Summer ; and here two Bushels of Pease will sow an Acre in Drills at 15, 20, or 24 Inches asunder, and give the Owner a most profitable Opportunity to drill Wheat in the Middle of the last Interval in *September* following.

## C H A P. VI.

*Of BEANS, the several Sorts ; and also*  
FRENCH BEANS.

**T**HE Culture of this Seed is much like the Pease ; for, 'tis to be observed, they will grow well without soaking in the Manure Liquor ; for the same Danger is in the Bean, as before in the Pease, in respect to the swelling and bursting the Skin, which may destroy the Pulp of the Bean.

Beans require a stiffer Ground than Pease, and will not like a dry Ground, by its Nature ; they are set in Rows with a Dibber, especially the Broad-bean, be it in either Field or Garden ; and after the Holes are filled up, or covered with Mould, then on each Rill put some of the Manure along each Row, but not too thick, for a little will do, which will not only preserve the Bean at the first appearing from Slugs, Snails, or any other Vermin from eating it ; and every Shower will feed the Roots of Fibres of the Bean, to bring it forward to its full Growth ; and if the Plat of Ground in Garden, &c. is not so large as a Field is, the sowing of the Manure over the whole Piece, after the Beans are set, will increase them both in Quantity of Stalk and Height very much : Let the Proportion be of sixteen Bushels of the Manure of an Acre.

I have seen by setting the *Portugul* Hotspur on a Plot of Ground about the Beginning of *December*, after the Beans was set, and the Holes filled up and raked smooth, the Manure was sowed thinly over the Ground ; That in the Spring the Beans grew and flourished beyond the Nature of that Specie or Sort of Beans ; (for commonly they are not above two Foot in their Height, and Pods in Proportion) these grew  
to



to Four Foot, and some to five Foot high, with an hundred Pods on some Stalks, and many had two or more Stalks, and as large as some broader Beans, which were the Wonder of many that saw them.

As to Horse-beans, being a much smaller sort, 'tis the best Way to set them in Rills, tho' many take other Ways, as Casting by Hand; but if the Farmer will try this Way, by running the Plough along the Field, and putting the Beans in the Rill after the Plough, and let them be covered by a Hoe, or otherwise, as was before said by the Pease, and if he sets them at the same Distance, by Reason of having the Conveniency of hoeing them; after which covering them with some of the Manure on each Rill, it will save Time and Expence in the sowing or setting, and prevent Fowls, &c. from devouring the Quantity that is done by the Casting, and also preserves the young Shoots at their first appearing.

All *French* Beans should be sown the same Way, by which Means you will preserve many Crops that are devoured by the Slugs, &c. as very often happens to the Gardeners about *London*, and elsewhere; for at the Time of sowing the *French* Beans, being *April* or *May*, the Slugs, &c. are very troublesome.

### *A Supplement to the Chapter on BEANS, &c.*

**I**N this Chapter Mr. *Trowell* likewise says very justly, that if Beans are first soaked in the Manure Liquor, that they will, like Pease, be in danger of bursting and rotting; yet this is not a general Rule, for that there is Room for an Exception, as I shall hereafter shew. It is true, that this Pulse is very prone to burst and rot by too sudden, and too many Showers of Rain that causes their being often lost in whole Crops; and this was the very Case with many Farmers and

Gardeners Bean-Crops in the Spring-Season of 1746, where the Seed was sown or set too early, which obliged them to replant. And tho' they did this, their Horse-beans in particular suffered much by the destructive Dolphin Fly, bred by the frequent Showers of Rain, and the hot Glades of the Sunbeams that interposed their scorching Rays between their falling, and produced this horrid Insect, which no Manure, sowed over the Ground, can prevent: but I will here make known a Way to prevent this Collyer Fly's Damage, notwithstanding it is so destructive to thousand Acres of Beans, as to spoil most of them in some Years. These black Dolphin Flies always begin their Settlement on the top Part of the Bean-Stalk, and there carry on their Increase till they get down almost to its bottom, and live on the Sap of it, by which they poison and destroy it; for then the Beans wanting Nourishment, pine and come to nothing, or at best cannot grow into perfection. I am the first Author that discovered this Remedy, and that is, when a Crop of Horse-Beans is perceived to be seized by this Dolphin Fly, then let a Man make use of a Scythe, and go in among them, and mow their Tops off so far as the Fly has settled. This he may do tho' the Beans are sown promiscuously, but better if they are sown in Drills; and when all the Tops are cut off, the Fly falls with them on the Ground, and can never rise again: Thus this Insect's Mischief is prevented at a small Cost, and the Crop of Beans will grow and flourish the better for thus losing their Tops. The sowing of a Manure over the Rill or Drill after the Beans are in the Ground, cannot be near so good a Way as to sow the Beans out of the Hopper of the four-wheel Drill-plough, and Manure at the same time over them, which are both covered immediately by a very small light Instrument fastened to the Tail of the Plough, that gathers up some Mould as the Plough goes along, and leaves a Ridge of it over the Beans and Manure, which confines them close together out of the Weather,



Weather, and thus nourishes the Crop in the best manner possible, keeps off Worms, Slugs, and Grubs, and is in some Degree kept, by the Humidity of the inclosed Earth, from burning the Bean-Seed: This Mode of sowing Beans and Manure together in Drills, carries this beneficial Security with it. If chilly Rains fall in Abundance quickly after the Beans are sown, they have not Power to burst them before they have passed a regular Vegetation or Spouting; because the Manure being of a hot fertile Nature, forces on their Growth so quick, as to prevent any such Stagnation that might spoil them; and therefore this Way of drilling Bean-Seed and Manure, and gathering a Ridge of Earth that is thus left over both, certainly far exceeds all other Ways of sowing Beans and Manure whatsoever, where the Soil will admit of their Operations. This Drilling Way gives a Person the best Opportunity to destroy the Hail, and other Weeds that in some Years destroy the greatest part of Field Horse-Beans, and also gives the most room for Stalks to carry the greatest Number of Pods on them. I have known many Stalks carry above eight Pods on each of them, in a wet Summer, that grew in a promiscuous Crop on Vale Land, and were four and five Foot high, without the Help of any Manure that Year: What might be expected from a Drill-Crop, where the Seed is covered with a Manure.

As to Kidney-Beans, they may be sown in the greatest Perfection out of this four-wheel Drill-Plough, if they are first run through two sorts of Hand-splinter-sieves, (which I sell) for adjusting theirs, as well as the size of Horse-Beans, to the Seed-roller, or Box, or Nut, for it is called by some after one of these Names; but I never knew that any powdered Manure would prevent the Slug from hurting Crops of young Vegetables: No, this I deny, because the Frequency of Showers of Rain will wash off its Efficacy, whether it be Salt, Lime, or Soot. But I know a Secret that will keep off the Slug and naked Snail from hurting any sort of young Vegetables whatsoever, altho' it rains a Fortnight together,



together, and the same, during a whole Summer ; yet is no Powder Manure. Ground can't be made too rich for a Bean-Crop, tho' neither Vale nor Chiltern Farmer seldom or never dung for them, nor give the Land more than one plowing. Horse-Beans are propagated several Ways ; as by setting them in *February* by the Dibber, according to the Practice of the *Middlesex* Farmer. In the Vale of *Aylesbury* they sow them broad-cast, and plow them in with a Foot-plough on only one Plowing. In the Chiltern Country, if we plow them in, we first give the Land two Plowings to make it hollow ; but one plowing we sow them on the rough Ground as the Plough leaves it, and harrow the Seed in. In broad-cast Sowing we sow 4 and 5 Bushels on an Acre ; but in the Dibber, or Drill-way, we sow but 2 or 3 Bushels at most on an Acre, our Drills in this Case must be 20 or 24 Inches asunder.



## C H A P. VII.

## Of TURNIPS.

THEY are a small Seed that does not require any soaking, the plowing of the Ground well, and sowing of the Manure either before or after the Seed, will do ; but harrow the Ground well to mix the Seed with both Earth and Manure ; sixteen Bushels of the Manure is sufficient, except as 'tis before said ; if the Acres are large, then add about a Bushel or two more, the Man preventing on the first coming up of the Seed to leave the Fly from eating it, as many Times is done by the destroying whole Crops ; and the Farmer, &c. have been obliged to sow two or three Times before his Crop has set. The Manure makes them apple well, and also produces a thinner Rind by the free growing of it ; also it gives them a better and sweeter Juice than



than what grows from the Produce or Force of Dung, as hath been found by Experience, by those who have had full Crops when their Neighbours have miscarried, and have been forced to sow several Times the same Year.

The Seed being so small, it may be mixed with any sort of Sand to prevent its falling on the Ground in Clusters, as many times it does, and grows too thick, which is a great Expence as well as Trouble to the Hoers in setting them out to apple; this way of mixing the Seed may save a Time of Hoeing, being generally three times over to make them apple better.

This Root is become very much in Use in divers Counties in this Kingdom, and become the Food of Beast and Sheep, &c. which are thereby fatted, and produces good of each sort: Now those that are given to Beast should have either Straw or Hay to dry up the Moisture, for it is a Food too moist alone for Beast.

The Turnip must be given whole, not cut too small, if where they are large, when they are put up in Stalls to feed, for many a Bullock hath been lost by swallowing a small one too eagerly without chewing; to prevent which, in *Norfolk* and *Suffolk* they have a Rope made stiff of about an Ell long, and fussy at one End, to put into the Gullet or Throat of the Beast to preserve its Life, when such an Accident happens, (being first rubbed with Butter or Fat).

Sheep feed also fat on this Food, and will eat them very close to the Ground, but they should not be suffered to run or feed over a large Ground at a Time, for by so doing they'll spoil more than they eat, by biting, and leaving them so bit; for the first Rain that falls on a Turnip that is bit, and lodges in the Hole destroys it, and it will rot and stink soon.

Therefore to prevent this Evil, Hurdles, or some other Partition, should be put up a-cross the Field where the Turnips are, and if another Field was near when their Bellies are filled, it would be convenient for the Sheep to walk in, and to lie down; for where they lie

they taint and spoil the Turnip, so that a great Quantity is lost that Way.

Now when your fat Stock, either of Beast or Sheep, have eat up the Turnips pretty close, then let them have fresh ; and let your Servant pick up all the Turnips that are bit and left on the Ground with a Picker made for that Purpose ; after this is done, put in your lean Stock, either of Beast or Sheep, and they'll pick up every bit, so none is wasted.

Now where Grass is scarce in the Spring, and as there are many Countries without Grass, and Cattle oftentimes (if Hay is not plenty) pine away till the Grass comes ; and many, times Ewes drop their Lambs early, and having no Food both Ewe and Lamb is sometimes spoilt.

Now to prevent this, let those Grounds you intend to lie Fallow, be about *Michaelmas* plowed once, and sowed with the Turnip-feed, and let it grow wild, and not hoe it ; at the Spring you'll have a fine Food for all your Cattle at a little Expence, for a little Seed sows an Acre, you may divide the Ground as is before directed ; also if you have another Ground for them to walk in, it will save your Crop the longer.

*A Supplement to the Chapter on TURNIPS.*

**M**R. *Trowell* has surely wrote very ingeniously on the Turnip ; but as I am employ'd to add or diminish any Thing I think may improve this Work, I take the Liberty to say, that I have known Turnip-feed prepared to a good Purpose. And I likewise say, that a good Manure must be of very great Service here, because it will prevent the Fly's Mischief, that is the chiefest Insect that spoils Turnips ; for altho' the Rains may wash it, yet its Efficacy will hold strong enough to prevent its Hurt, till the Turnip gets into a rough bitter Leaf, and then this Danger is mostly over. The Reason  
son



son why I am an Advocate for this Manure, on this Account, is, because it has a mixture of foul Salt, which makes it a peculiar Antidote, as it is endowed with a most corroding sharp Quality. It will also be further serviceable, when the Turnips are hoed, for then the Hoe will gather the Manure, and lay it close about the Turnip, to its very great Nourishment. But the best Way of all others, is to sow Turnip-seed in Drills, out of the Hopper of the four-wheel Drill-plough; because here is a Manure made to fall on the Seed, which are both invellop'd in the Earth in Drills, at a Foot asunder, by the help of a little Harrow, weighing but four Pounds in all, that is fastened to the Tail of the Plough, and harrows and covers the Drill as the Plough is drawn along; and thus the young sprouting Turnip Crop is secured from the Fly; for by this Method they will show themselves in Leaf in three or four Days time, if the Ground is full moist at sowing, and outrun the Power of the Fly's Hurt. No Piece of Field-turnip-Husbandry can outdo this, for this is the cheapest, quickest, and surest Way of all others, to get a Crop of the biggest of Turnips at once sowing, I say at once, because they never miss taking the Ground in this Mode of sowing the Seed out of the Stopper of this Plough, by the regular Rotation of a Wooden Box or Nut; the Make of which may be so exactly adjusted, as to drop out the Turnip-seed faster or slower as a Person would have it, and the same in the sowing of any other Grain out of this Nonsuch-Plough. Now when the Turnips are got into Leaf about one or two Inches above Ground, we then make use of the most excellent two-wheel Hoe, that is to be drawn cross the Drills, and in its Drawing, it cuts up and leaves only one or two to grow at a Foot asunder, as the Owner thinks fit. And what is more particular, and plainly shows that this Wheel-hoe exceeds all other Inventions of the Kind whatsoever, is, that after it is thus drawn cross-ways, and made to kill



all the sprouting Turnips, except those that are left to apple, the same Wheel-hoe is to be drawn traverse again, that is to say, along the first Interval Ground between the Drills, by which Means the whole Crop of Turnips is intirely hoed at a most cheap Rate, and this Plough will sow Seed and Manure, and harrow two Acres of Turnips in one Day, and the Hoe will dispatch its Work in proportion. What Value then must these two Instruments be of? surely, if some who occupy large Farms of Land, proper for sowing Turnips, were to pay Fifty Pounds for them, they would not pay too much; on the contrary, they must get sufficiently by their Uses: But as I have (as I said) the first four-wheel Drill-plough, that ever was made, with two Hoppers, a Harrow, and a Gathering-Instrument, I shall sell both the Plough and Hoe as cheap as I can afford them. The first Turnip Crops that were sown and propagated by this Plough, was done but in the Year 1745, and beat all the Crops of Turnips in the Country, for Largeness and Goodness, as they were left to grow at a Foot Square in Distance from each other. A Cut or Draught, as I said, of this Drill-plough and Wheel-hoe, I intend to show, with near forty other Instruments, by and by. A Field of entire Loamy Earth, that lies so flat as obliges us to plow it in round-work by the sowing Plough, and lay it in Land each consisting of twenty Furrows, was plowed the latter End of *July* 1746, and sowed in Drills cross the Land, and all the Ground, both in the high and low Part of it, was sown alike; for as the Henting, or Water-furrow of each Land, lies a little lower than the Ridge part, the Wheels dip accordingly, and the whole Field was sown alike: Yet this Field, in Winter, is so wet, that they are forced to draw the Turnips, and feed them on Meadow Ground.

What Mr. *Trowell* observes of feeding Bullocks with whole Turnips, is very just; but I add, that as this Root contains much Water, and the Leaf the same, they  
are



are very apt to hove and kill a Beast ; wherefore, as a Security against this fatal Mischief, on the very first turning of a Bullock into a firm Field of Turnips in Leaf, every Owner would do well to fill an Egg-shell full of Tar, and give it by pushing it with a Hand down the Throat of the Bullock or Cow ; a thing easily done, if a Person gripes him by his Nostrils, while another holds her by the Horn, and thrusts down the Egg-shell of Tar. And I do assure him, that as it is my Practice every Year, to give my Horned Beasts this Antidote, I know it has preserved from Hoveing and Swelling. A Gentleman, that fats many Bullocks on Turnips in a Year, constantly observes this Practice, and finds that it secures them, on only once giving, from this Swelling or Hoveing, by the Water and Wind contained in the Leaf all the Season, provided the Cattle is constantly kept under a full Feed of this Watry Meat.

Mr. *Trowell* well observes, that it is a good Way to sow Turnip-feed about *Michaelmas*, and not hoe the Turnips. This I do, but then I sow the Turnip-feed in a Mixture with Cole-feed, and find it an additional Improvement for feeding Ewes and Lambs in the Spring, because the Cole helps to make a greater Quantity of Milk, as being a more succulent Plant than the Turnip.

When Turnip-feed is sown in the old common broadcast Way, we never mix Sand, or any Earth with it, to make it spread regularly, for this is what I never knew practised in *Hertfordshire*. I have had several Fields of Turnips sown every Year, in the old Way, and always have the Seed sown naked from the Thumb and two Fingers.

In *Norfolk*, and *Suffolk*, among their several Sorts of Turnip-feed, some sow the Yellow Sort, which is so much of the Carroty Nature, that their black Runts feed very greedily on them, and eat these Roots up to the last Bit, where they can come at them ; for this  
is



is the sweetest Turnip that grows, and is an excellent Sort for the Pot. And I add, that the four-wheel Drill Plough and Wheel-hoe, are worth their Weight in Gold for the Service they are capable of being made to do in all Ground that is not too stony and rough, particularly in the sandy and loamy Soils of these two Counties.

Turnip-seed requires to be sown in a well-dressed hearty Earth, first brought, by several Plowing and Harrowings, into the finest tilth. In this Condition, in the Month of *June* or *July*, we sow two or three Pounds of it on an Acre broad-cast, twice in a Place, and harrow it only once in a Place.

Turnips are one of the most profitable Vegetables belonging to a Chiltern Farm, for with these we feed our Cows, our Sheep, our Hogs, and tame Rabbits; and when we have a full Crop of them, we either feed our own Sheep with them, or sell them to Butchers, or others, for fattening theirs. If our own, they are either our Store Sheep, or those we fat for Market, each of which require a different Management; for when we fat for Market, we don't fold them, but hurdle them out a fresh Piece every now and then; and if the Ground is of a dry Sort, they'll eat the remaining peck'd up Pieces of Turnips. But when we feed our Store Sheep, and the Ground is of the dry sort, we generally fold every Night, and thus dress the Land to a considerable Advantage, for sowing the same with Wheat or Barley-seed. If with Wheat, they must eat the Turnips off by *Candlemas*; and tho' no Author ever yet remarked it, I do assure my Reader, that the best of Wheat Crops have been got by sowing the Seed immediately after Turnips are eaten off, on only plowing up of the Ground.



## C H A P. VIII.

## Of CARROTS.

**T**HIS is a Root which is small and light in the Seed, though, in a good Ground, it produces a large Root; if it is a sandy Soil it likes it better, and will shoot a great Depth into the Ground; but if a stiff Ground, it will grow stubby, and not draw a long tap Root as otherwise. The Ground must be dug two Spades deep, and if plowed, as they do in *Norfolk* and *Suffolk*, where they plow many Acres, they plow it with a Hand-plough after that, in the same Furrow they plow with a Wheel-plough again; and raise the Earth as much, or deeper the second time, as their Strength of Horses, which is three or four, can well do, and upon the Share fix a weight of a Hundred Pound, or more, to make it strike the deeper, for then the Root is the larger and longer, whereby the Ground is made the lighter for its Vegetation; if stony, the Roots are checked, and do spread into many Fibres, and hinders the Root from growing or shooting downright; the Manure must be put on after the Ground is plowed.

Now when they sow a Field, the Sower always goes backward against the Wind, which seperates the Seed that it does not lie in Clusters, as it is subject to do; but if it is mixed with a little Sand, it will separate the Seed the better, and prevents it falling in Clusters, and it will be the easier to hoe, when they come to be set out.

Now this Root is not only used in Families, but is good Food for Horses, Hogs, and many other Cattle which feed on it eagerly, and fatten, as in those Countries many do, to their great Advantage; and sometimes one Acre is sold for ten or eleven Pounds.

They

They that give it to their Horses pull them up, and wash the Sand or Dirt from the Roots in a Tub, the Tops being cut off, then the Carrot is put whole into the Manger, mixed with Chaff; the Roots must not by any means be cut, for the Horses eating of it eagerly, they may be subject to be choaked: If no Chaff is to be had, then chopped Straw will do, for it is too moist a Food alone; and when it is given to the Ox or Cow, either Hay or Straw must be given them, by the Reason of the before-mentioned Moisture: As to what is given to Hogs, they eat it raw, but if boiled with any other sort of fowl Corn, it will make them thrive the better, and sooner fat.

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*A Supplement to the Chapter on CARROTS.*

**M**R. Trowell's Account of this Root is good. I have seen them at work in *Norfolk* with a Foot-plough, and a two-wheel Plough to deepen the Surface Earth for sowing Carrots, or Lucern Grass-seed, and is a good way where the sandy Soil holds its Virtue so deep, as to be worth turning by two Ploughs following one another; and if the Ground, as he says, is well manured, it must do considerable Service to the Crop. Carrots are excellent Roots to give milch Cows, and Sows, and young Hogs, for they are so hearty and moist, as to produce much Milk, and fatten all Beasts that eat them with great Expedition. But some Jockeys, I think, make an ill use of them, when they fatten Horses with them for Sale, for at best they give the Creature but a flashey Fat, that soon goes off in hard Working; and before they can be brought to eat hard Corn, they are apt to pine. He also says, that if Carrots are boiled with fowl Corn, they will fatten Cattle soon; but our Way in *Hertfordshire* is to boil these, or Turnips cut into Pieces, with Pollard or Bran, to a Sort of Mash, and find it a fattening Feed; and



and this indeed we Farmers know to our Cost ; for on this Account we have great Numbers stole by the poor People to feed and fatten their Swine. At *Godalmin* in *Surry*, I saw the greatest Plantations of Carrots that ever I met with in *England*. Accordingly they sell them here by the Cart Load very cheap, and do a great many good Things with them. And it is my Opinion, that there are Neglects of this sort of Improvement to a great Degree, where they have sandy Soils, as those are about *Godalmin*, and which, I suppose, is partly owing to their Ignorance, as not believing they are so valuable for many Uses as they are.



## C H A P. IX.

## Of BUCKWHEAT.

**T**HIS is a Seed that is the latest sown of any, as in *May*, yet it may be sown on any barren Land ; but then it would be proper for the Husbandman to sow the Lands, that he designs for Brank or Buckwheat, with sixteen Bushels of the Manure early, that is, in *February* or *March* ; by which means the Ground may receive the Benefit which the Manure gives ; for if it is not sown then, the Heat of the Season, being *May*, may hinder it from meliorating the Earth, as it will, if sown early ; When you sow the Manure harrow it well, then let it lie till you sow the Seed ; you may steep it ; as for the Barley then let it dry a little, and before 'tis sown, sift some of the Manure over it ; when 'tis sown, you need not fear a good Crop, if not prevented by any Accident of Weather. ; this is good for Fowls, Hogs, or any other sort of Cattle, tho' it is eat and made Bread of in dear Years ; and it is often mixed with the best Flower, being so white in its kind.

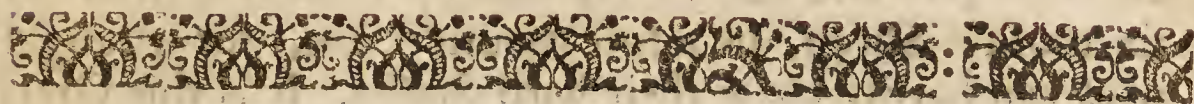


*A Supplement to the Chapter on BUCKWHEAT.*

**B**UCKWHEAT is a very valuable Grain to sow for various Uses. In some of the Northern Countries they sow it to make Bread, for it nourishes much either alone, or better when its Meal is mixed with a better sort. But nearer *London* they generally sow it to give Hogs and Poultry; and in many Places sow it, as I have done, to plow it into the Ground as a dressing to it. It will grow in Loams not too wet, but better in gravelly, chalky, and sandy Loams; is best sown in *March*, *April*, or at the Beginning of *May*. The better the Ground the fuller the Crop, and the fuller the Crop, the more it will enrich the Earth. It should be sown to be ripe the latter End of *July*, or at the Beginning of *August*, that it may be plowed into the Earth time enough to rot or mix with it by two or three Plowings before Wheat Season; and at first it should be plowed in when it is in its white Bloom, before it has formed its Seed, else the Seed will be apt to grow in the next Crop of natural Wheat, and several others to adulterate them. Thus a Crop of Buckwheat may be made to prepare Land for sowing it with natural Wheat at *Michaelmas* following, or for improving a Rye Crop instead of dunging it from the same Yard. But if a full Crop of it is let to stand for Seed till it is full ripe, I do assure my Reader it will impoverish the Ground very much. This Seed may be sown out of the four-wheel Drill-Plough with Manure, at eight or twelve Inches asunder Drills, and the Intervals hoed with the Wheel-hoe; and thus a Person may enjoy a most bulky Crop of it, and yet not hurt the Ground; for as the Seed has here a Manure immediately dropt on it, it has a proper Nourishment given it; for this *French* Wheat requires a great Assistance to carry it forward into a bulky Crop, and unless a Person has a large Crop of it, it will not answer,



answer, neither to be plowed in for Dressing, nor for a Crop of Seed.



## CHAP. X.

### *Of CLOVER, CINQUEFOIL, and LUCERNE.*

**T**H E S E are several Sorts of Grass Seed which have been brought from abroad, and have thriven very well with us in these Parts, and produce great Crops of their several Kinds for Hay, and may be mowed twice a Year, and if a wet Season, oftener: But if after the first Mowing you intend to save the Seed, they must not be mowed a second Time: All Cattle love these several sorts of Grass; as also the Hay made from each, which they feed eagerly on: Care must be taken when you put your Cattle into Clover first, for they will eat of it till they burst, it being so pleasant to them: If you sow these Seeds alone on your Ground, then put sixteen Bushels on an Acre of the Manure; but if you sow them to come after your Corn, as is many times done, then the Manure that you sowed with the Corn is sufficient for its Produce.

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#### *A Supplement to the Chapter on CLOVER, &c.*

**I**N this Chapter Mr. Trowell gives little or no Advice how to propagate these Seeds, otherwise than by sowing a Manure: Although indeed I could write a Treatise on these alone, but as I am confined to Brevity in Writing this Supplement, I have only to say, that of all Grasses, Clover-grass is the Farmer's best Friend, because it agrees with Clay, stiff Loams, or any other loamy



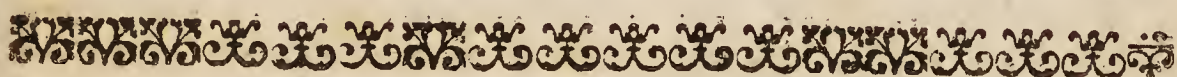
loamy Sort; is a warm, hearty fattening Food, (especially when made into Hay) for Horses, Cows, Deer, and Sheep: But when I say Sheep, I mean a four or six-tooth'd Sheep, or a full mouth'd one, for younger ones can hardly chew their hard Stalks. It is this Grass that grows into such large Roots, that when they are plowed up, help to dress the Ground and hollow it, while its Growth above gives us sometimes three Loads of Hay from one Acre. In the Summer 1746, I mowed four Acres inclosed Field twice, once in *June*, and last in *August*, for Hay; and the last time I think I had as much more as the first, even three Cart Loads off each Acre. In 1745, I sowed this Field with Barley and Clover-feed, and strewed *London* Soot over the Ground. Now the Soot being of an Oily Nature, and tho' I sowed it as thin as possible, loses not its Virtue till two or three Crops are got off; therefore I had by a long rainy Season, this Success in my second Crop of Clover. Hence I have to remark, that when a Crop of Wheat, or Barley, or Oats, is sown with Clover-feed, and the Land well dunged, or manured for the same, there will (if the next Summer is not a very dry one) be a very great Crop of Grain, and two very bulky Crops of Clover in Hay or for Seed; and for this Purpose I always, as soon as I have sufficiently harrowed in my Barley or Oats, sow 12 Pounds Weight of Clover-feed broad-cast, twice in a Place, and harrow it only once in a Place on an Acre.

As for the Cinquefoil, we manage as for Clover, and sow two Bushels on one Acre. But where Clover is to be fed in the Field, I sow one Bushel of Cinquefoil in its black Hulls, with ten Pounds of Clover-feed, on each Acre, to prevent Cows or Sheeps hoveing, or (as they name it in *Sussex*) swelling.

But for Lucerne, we of late take another Method, and that is by drilling in the Seed in Drills at 12 Inches asunder, and cleaning the Intervals with a two wheel Hoe, and thus a Crop of it may be made to last seven  
Years,



Years in good Order, free of being crippled in its Growth by Weeds, as is always the Case with Lucerne Crop, when the Seed is sown in the broad-cast Way, by being harrowed into the Surface of the Earth. Did Persons know the Value of this Mode of sowing Lucerne-feed, they would hardly do it any other Way. I know an ingenious Gentleman that sows his Lucerne-feed this Way in Drills, at a Foot asunder, and that makes use of the *Dutch* hollow Hand-hoe, to hoe and clean the interval Ground of this drilled Grass, and does the same between his drilled Wheat and other Corn. But this is both a tedious and very chargeable Way of doing it, enough to make a Farmer despise it: Wherefore this new Instrument, which I call a two-wheel hoe, was invented to supply its Deficiencies, and supply it it will in a very surprizing manner by hoeing and cleaning two Intervals at once, and this in great Perfection; for it goes deeper than a Hand hoe can, and clears much more Ground in a Day. Sixteen Pounds of this Lucerne-feed sows one Acre when sown in the broad-cast Way and harrowed in; but in the Drill Way half that Quantity will do.



## C H A P. XI.

## Of H E M P.

**T**HIS is an useful Seed, and from it proceeds a great Commodity, and a great Quantity of it is fetched from abroad, tho' we have many Places in our own Country would produce great Quantities; which, if it was more encouraged, would save many Thousands of Pounds to the Nation, that is now expended in Cordage for Shipping, &c. and it might be made a  
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Staple

Staple Commodity, and would employ many thousand Hands that now want that Assistance; and as we see other Nations, as well as the *Dutch*, make all their own Cordage, &c. 'tis pity that we should be so idle as not to act as they do, having much Land that would produce great Quantities, which is hardly good for any thing else; as about the Isle of *Ely*, and all that Tract of Land that runs up to *Wisbeck*, *Bedford*, and *Lindsey* Level, and Part of *Lincolnshire*; being as I am told, more than three hundred thousand Acres, which are the most proper Lands for the Produce thereof, and might produce as good and strong Hemp as any comes from abroad; by which means we may export by our Merchants to every Part, as well as to employ Ships to fetch it; this would improve our Trade as well as our Lands; and also will encourage the Industry of many Families in those Countries, who are sinking under the want of such a Benefit, and the Lands made but little of, which might by Industry yield vast Products of this Kind. The Use of this Hemp is great to many, as well for the Cordage for Shipping, as for almost innumerable other Uses; and no Family can be without it, in its Uses in some Way or other, nor any other Employment but requires its Use in the like Case. Therefore should not all the Diligence that is possible, be to obtain this Commodity, which is so much required in all Acts of Arts, &c. and may be very easily raised; and what is more, requires so many Hands to work it up into the several Uses that it is called for in all Sorts of Ways, so that almost both Sexes, from the oldest to the Infant of six Years of Age, will find a Maintenance; the Seed of this is sold almost in every County; 'tis said, that three Bushels sows an Acre, 'tis sowed in *April*, and if great Care is not taken of it, the Birds will devour a great Part of it, therefore they generally set a little Boy to watch and hoot, to affright them away. Be-  
fore



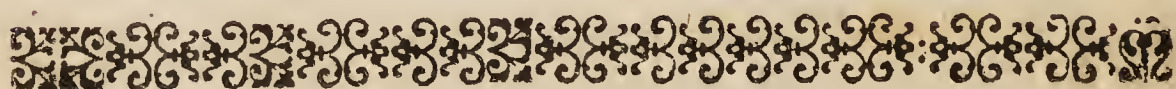
fore the Seed is sown, let the Manure be sown over the Ground and harrowed well, by which means you'll have a great Crop, and Stems grow off the Hemp like a little Coppice, from whence you'll have a very great Increase of Seed, if you let it stand so long as *Michaelmas* ; but about *Lammas* is the Time of drawing it for the Summer, of what is then ripe ; you must pull it up gently, and not break it, for what is broke is spoiled : When the Crop you have left for Seed is ready, which will be about *Michaelmas*, or a little before, you must then pull it, and bind them up in Bundles, called a Yard Hand ; you must stock it up in a Barn, or some dry Place ; then in the Season thresh it to get out the Seed, and when you are ready to peel it, to sell rough, you may tie it in what Bundles you please : Those that dress it by Brake or a Tew-Tow, and prepare it for the Use of their Families, know the Nature of its Work to bring it to be spun : Now one Acre of good Hemp is worth from five Pounds to eight Pounds an Acre ; but if it be wrought up, it may come to from eight Pounds to twelve Pounds an Acre or more.

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*A Supplement to the CHAPTER on H E M P.*

**M**R. Trowell has wrote well on the Propagation of this Seed, in saying, that the Isle of *Ely*, and other such Places, might be vastly improved by it ; and I say, that any Loam might be sown with it to Profit. He likewise says, that the Seed, on being sown, is very apt to be devoured by Field Fowls, and so it is as it is sown in the common Way ; but the Case is otherwise if it is sown out of the four-wheel Drill-Plough ; because this Instrument sows Manure directly on the Seed, and both covered by a Ridge of fine loose Earth, which entirely shelters and protects it from the

Power of all the Winged Tribe, and nourishes its Growth to the last in the highest Perfection: And indeed this Grain in particular requires this way of sowing it more than ordinary, as its large high Stalks draw much of the Ground's Virtue to nourish their Growth, and to make them stand erect. Besides, it is wellknown, that Weeds are prodigious Enemies to a Hemp Crop, and as its Seed is sown in the common broad-cast Way of sowing it, it is impossible to destroy them all. But in this drilling and hoeing Way, Hemp Crops may grow free of these destructive Incumbrances, and thus may be made to return their Owners the greatest Profit. But whether the Ground is to be sown with Hemp-seed in the common Random Way, or in the Drill Way, it ought to be plowed and harrowed till it is very fine; then about the Beginning of *April*, three Bushels of the Seed sown broad-cast, and harrowed in, will be sufficient for one Acre. But if sown in Drills, at 12 Inches asunder, two Bushels will do; if in Drills, at 6 or 8 Inches asunder, more. And here I have to remark, that when this new Sort of Drill Husbandry is come into an Approbation, I don't doubt, but that there will be much more Land sown with Hemp than is at present, for the sake of the several Branches of Profit that attend the same.



## CHAP. XII.

### Of FLAX.

**T**HE sowing of Flax is of as general a Use as before of Hemp, which will employ a great Number of Persons in an honest and laborious Way, and many



many thousand Hands are employed abroad to a very great Benefit, as is known in *Germany, Holland, Flanders, France*; and large Sums have for many Years past, as well as at present, been annually sent out of this Land for the Produce of it in every Species of what Flax is wrought up in; not only in Cloth of divers sorts, but Thread of divers sorts: But at this present Time, and for some Years past, by the worthy Encouragers of the Linnen Manufactures, *Ireland* is become in a few Years the Wonder of all *Europe*, who have brought to such a Perfection their Linnen-Cloath, that in Fineness it is a Parallel to any made in any of the before-named Places, and may in Time, produce an equal Part with any other Country. The Import to these Parts shews the Industry of them; and as they are a People under the Government of the same Prince, we should join all that in us lies to reward them with the Use of it in general: And as this Kingdom has Land in many Places that will and does bear good Flax, especially, 'tis said, that about *Maidstone* in *Kent*, where Thread is made from it, that is the best in these Parts; and as one Acre will bear Flax to maintain many Persons for the compleating of it into Cloth, therefore we should shew our Industry, as other Nations, to bring it to be with us a Staple Commodity. The Flax Lands require the same Husbandry as Corn, both in plowing and sowing; therefore to add to the Increase of it both in Quantity and Strength, the Manure should be sowed on the Land, as for Corn; and the Care of the Husbandman is required in the Weeding of it: It may be sowed in *March*, tho' some sow it the latter End of *February*; the East Country Flax Seed is counted the best, but the second Crop of our own Seed is counted good, being saved from that of the East, two Bushels sow an Acre: In some of the colder Counties they do not sow it till *April*, as in *Warwickshire* and *Worcestershire*, &c. it must grow to its full Ripeness,

which may be perceived by the Hurle and Seed : When it is ripe, get your Hands to work to pluck it, and then tie it up in Handfuls, and set them upright one against another, like a Tent, 'till it is perfectly dry, then get it into the Barn, till you want for the proper Uses of the Family, &c.

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*A Supplement to the Chapter on F L A X.*

**M**R. *Trowell* in this Chapter has well observed, that the great Profit arising from Crops of Flax, ought to invite many to the Propagation of it in *England*. But so it is, that for want thereof, Foreigners, for many Years past, have drained these Kingdoms of immense Sums of Money, in the Purchase of their Linnen Manufacture. But now, as Mr. *Trowell* observes, this necessary Commodity chiefly by the ingenious Industry of that serviceable Body of Gentlemen the *Dublin Society*) is of late prodigiously manufactured in *Ireland* : And I say also that in *Scotland* it is arrived to a very great Pitch of Improvement, and partly by the Endeavours of that inquisitive and indefatigable Gentleman the late Sir *John Dalrymple*, who I had the Honour to correspond with : But so it is, that few in *England* fall in with the Culture of Flax : The most Crops of that I met with in my Travels, were about *Taunton* and *Exeter*, and so nice are some of these, that several of them send for their Flax-seed from the Eastern Countries, as being the best of Flax-seed for a Change ; and why it is not more sown in other Parts (in my Opinion) is because People are ignorant of its Management. As to its Cultivation, it is (as Mr. *Trowell* observes) the same as with Corn. If a loamy Soil is plowed fine and well dressed, its only sowing the Seed broad-cast and harrow it in according to the common old Husbandry. For  
the



the newest Husbandry of all others is to sow this Seed out of the Hopper of the three-wheel Drill-plough without Manure, or out of the four-wheel Drill-plough with Manure, in Drills, at six or eight, or ten, or twelve Inches apart, and which will give the *Dutch* Hand-hoe, or better the two-wheel Hoe, Room to destroy the growth of Weeds, that are a great Enemy to the Thriving of this profitable Vegetable ; and thus Seed will be saved, for by drilling it, near half the usual Quantity will serve. Two Bushels of Seed will sow an Acre in *March* broad-cast, and about one, or one and a half drilled.

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## C H A P. XIII.

## Of RAPE, or COLESEED,

**I**S a Seed to be planted in Fenny Marsh Land, or Land newly recovered from any Inundation, or any coarse rank Land of any Kind, that is not fit at the present for Corn : The chief Care is to have good Seed, the largest is best, which is to be had in many Parts, but that from *Holland* is counted the best ; the Season for the sowing it is about *Midsummer* ; the Land must be well plowed and made fine, about a Gallon of Seed sows an Acre ; it is better to mix it with some dry light Earth or fine Sand, to prevent it growing in Clusters ; many Persons sow it only for the Benefit of the Produce of Seed, which if for Seed only, Care must be taken that when the Plant is grown up and set for Seed, that is, begins to turn brown, you must reap it as you do Wheat, and lay it up together, two or three Handfuls in a Bundle, till it be dry, for about a Fortnight ; it must not be turned or touched, if possible, for fear of shedding the Seed ; it must then be gathered in Sheets, or rather a great Sail Cloth, and so carried into the Barn

to thresh it in the Field, by Reason it is so subject to shed ; the more Hands you have the sooner it is done, for fear of Rain, when threshed in the Field : The Seed is worth about four Shillings a Bushel, and if a good Crop, it will yield about ten Bushels an Acre, or more if a good Season. It is a Commodity that will not want of Sale, the more you have, the better Price it bears. It is used to make Oil ; there may be some Turnip-feed grow among it, which will make Oil : It grows best near the Water.

Those that sow it in Grounds about the Isle of *Ely*, and other Parts of *Cambridgeshire*, &c. feed many hundreds of Sheep fat to very great Advantage, and are sent up to *Smithfield* Market, and sold there in great Numbers. Now when the Ground is plowed and made fit for the Seed, then you may sow the Manure either before the Seed or after, by which you will have much greater Crops and stronger ; and after the Seed is off, the Edish will feed Sheep very fat.

*A Supplement to the Chapter on RAPE, &c.*

WHAT Mr. *Trowell* writes in this Chapter, that Marsh, or other wet Land, is fit to be planted with Cole or Rape-feed, without taking Notice of sowing it on any other, is enough to make some People imagine, that no other Sort is fit for it : But I can assure them of the contrary, as I sow this Seed myself almost every Year ; for a dry Loam, or even a gravelly or sandy Loam, is well dunged or Plowed fine, this Plant, if hoed in due Time, will thrive very well in it. It is true, that many sow half a Peck of Cole-feed on an Acre, in the Random broad-cast Way, and never hoe the Plants ; but he that does hoe them, not only stands the better Chance of a much greater Crop, but  
is



is sure to clear the Ground of Weeds, and thereby prepare it for sowing a Crop of Beans, Pease, Barley, Oats, Vetches, or other Grain at the following Spring Season ; for as Cole-seed is to be sown in *July, August,* or *September*, it may be eaten off Time enough for these Improvements ; or the Crop may be left to stand for Seed. However, where a full Crop of these Plants are, they will certainly return a great Profit to the Owner for selling as boiling Herbs, or to feed Milch Cows, or Ewes, or Sows, or fat dry Cattle, as Sheep, or as Deer, &c. or for feeding Geese, Ducks, Buzzards, or Pheasants, and Turkeys, or the Crop may be left to stand for Seed till *May*, as I said, to great Profit. But let me assure any Person that has a proper Soil to sow Cole or Rape-seed in, and Conveniences to preserve it from Damage afterwards, that no Way whatsoever of propagating this Seed comes up to the Profit of sowing it out of the three or four-wheel Drill-plough, and afterwards hoeing the young Plants with a Horse-break, or two-wheel Hoe, for that no Hand-hoe whatsoever can do this Work so effectually and cheaply as these Instruments, I mean, where either one of them are employed for this Purpose. A good Manure would here do Wonders, if sown on this Seed out of the four-wheel Drill-plough.



## C H A P. XIV.

*Of W E L D or W O A L D for the Dyers Use.*

**T**HIS is a rich Commodity, and beareth a long greenish yellow Flower, which runs to a small Seed, much smaller than Mustard-feed, and very thick set: It flourisheth in *June* and *July*, and in some Places it sows itself, and groweth wild; and considering the little Charge of it, it brings great Profit to the Sower, it being of so great Use in the Dyers Way for their Yellow; for it grows upon the poorest Land, if it is light, not worth Twelve-pence *per* Acre. It must be dry Land, and the Cost is but little in the managing of it; it requires but little tillaging or harrowing; it may be sowed with your Barley or Oats, without any Addition of Labour, or of the Manure, that being first sowed with Corn, only drawing a Bush over it, or a Roul, either of which will cover it after it is sowed: 'Tis with this Seed as with many others being small, the Difficulty in sowing; but as is directed before, it must be mixed with Sand or fine dry Earth, to be sowed even, and not in Clusters; about a Gallon of Seed sows an Acre; the Sower must often stir the Mixture with the Seed, to prevent the Seed falling to the Bottom: The Seed thus sowed may grow up among the Corn, and will be no Prejudice, because it groweth not fast the first Summer; but after the Corn is cut it must be preserved and the next Summer a very great Crop: When it begins to be ripe, then you are to watch it, for  
if



if full ripe the Seed will scatter, and if not ripe it will make the Seed not perfect, nor your Stalk neither ; therefore Care must be taken both about the Seed, and ripening of the Stalk, and as soon as you perceive them to be come to a perfect Ripeness, then pull it, as you do Flax, by the Roots, and bind it in Handfuls, and set it to dry until both Seed and Stalk is dry ; then carry it away to some dry Place, that the Seed be not lost, till you get a Sale for it, from the Dyers, who many Times give a very good Price for it, and will go far to buy : It has been sold from Three Pounds to Twelve Pounds an Acre ; and more if you keep it till *March*, together with the Seed ; and then get out the Seed, it will sell about ten Shillings a Bushel, or more, as the Market rises or falls ; the Stalk and Root are both useful, and must go together, and gives the bright Yellow and Lemon Colour ; the Whole is reckoned not above Fifteen Shillings *per* Acre : The best Place to get Seed is about *Canterbury* in *Kent*, or *Wye*, where you may see both Land and Growth. It is sold by Weight often, at so much a Hundred, or by the Tun.

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*A Supplement to the Chapter on W E L D, &c.*

**M**R. *Trowell* says well, that these small Seeds may be sown with Oats or Barley, and I say so too, for that it is the general customary Way of sowing it, and because it is done only by sowing a Gallon or half a Peck of this Seed broad-cast on one Acre, and harrowed in or rolled in. But I will here tell my Reader another Way of doing it, and that is by sowing Turnip, and Rape, and Weld-seed together, in the Random broad-cast Way, which when harrowed in, may be left to grow without hoeing ; for if the Turnips and Rapes are hoed, it will spoil the Growth of the Weld ;

Weld ; and when in the Winter or Spring the Turnips and Rapes are eaten off, the Weld will flourish at a great Rate by the Tread, the Dung, and Urine of the Sheep, and be fit to reap in *June* following. This is a cheap and ready Way of sowing Weld-feed, and what is practised in *Kent*, where I am of Opinion, more of this Seed is sown, than in all *England* besides, for in some Places they content themselves with making use of only that Weld which grows wild, as it does in many Parts of Chiltern Countries especially. Again, as this Plant draws much of the Ground's Nourishment to maintain its Growth in Perfection, if a chalky, gravelly, or other dry Soil, was to be sown with it in Drills, out of the four-wheel Drill-plough, about *Michaelmas* Time, as Wheat is done, I do not doubt but that it would pay well, for this Plant grows somewhat like Wheat in Root and in Height, and in Bulkiness or Stalk, that are both of a yellow Colour, and therefore dyes a yellow or Lemon Colour. Some Farmers that can bear stock, keep this Commodity by them two or three Years together, in hopes to meet with the better Market for it. In poor Earths where Weld-feed is sown, I mean where poor Land is not kept in good Heart by frequent Dressings, there has been sad sights of thin Crops of Weld, and therefore they are attended with surer Success when the seed is sown with Barley, because for this Grain the Land is first brought into a Fineness, and commonly well dressed.



## CHAP. XV.

*Of WOAD or WADE, the best Land for it, with the Usage of it, and Advantages thereby.*

**W**OAD is also a valuable Commodity, and is the real Foundation and Solidity of many Colours: A woaded Colour is free from staining, and excellent for holding its Colour; nay, any dark or sad Colour must be woaded, to fix its Colour: It was one of the greatest Profit to the Masters, of any Fruit the Land did bear. It hath flat long Leaves, the stalk is small and tender, the Leaves are of a bluish green Colour, the seed is like an Ash-key or seed, but not so long, with little blackish Tongues; the Root is white and simple: It is a very good seed to grow, and thrives well, and beareth a yellow Flower on rich Land that is dry, and warm, or a little sandy; though the Manure helps it, if very rich, to bring forth a better Crop; sixteen Bushels on an Acre put on the Land when the seed is sown; 'tis better on the Hills side, where Lands are good Pasture, for the Bottoms will not do; but the chiefeft is your home, coarse, or lesser Grounds, lying near a Town.

There has been of this Woad in some Parts of *Warwickshire, Oxfordshire, Gloucestershire, Northamptonshire, Leicestershire, Rutland, Bedfordshire, and Buckinghamshire*, and many other Places, here and there, hath this Woad Land, which must be very sound Land, and near Three Pounds *per* Acre hath been given to sow this Woad on; for it is taken by the Operator for so many Years, to work the Land, as shall be agreed for: The Charge of making this Woad is great, though



though it pays well at the End. It must be well plowed; if the Ground is hilly, they must be cast; they generally plow outward, or cast all their Land at the first plowing, and after harrow it well, then sow it with about four Bushels of the Seed; and after the well harrowing, pick it clean of Clots, Turf, and Stones: When the Woad begins to grow, weed it well; then as soon as the Leaf is ready to cut, and having all Hands and Things necessary, which may be sooner or later as the Season is; your Mill being prepared with a Double Wheel, and the Tooth or Ribs, that cut the Woad, are placed from one side to the other, very thick wrought, sharp and keen at the Edge: As soon as the Woad is cut, and comes out of the Field, it is to be put into the Mill and ground, one Kilnful after another, as fast as may be; the Juice of the Leaf must be preserved in it, and not lost by any Means: When ground, it is to be made in round Balls about the Bigness of a common Ball, and laid one by one to dry; and as soon as dried, then put them together, and others put into their Places to dry.

The Time of sowing is the Beginning of *March*; and, from the Beginning of cutting the Crop, lasts till Autumn; then the Season will not ripen it as before, and then the Mill is at Leisure to grind it all over again; then you may make it stronger or weaker as you please; for from this mixing of the Woad makes the Difference between Woad and Woad, that the Dyers will hardly buy any Parcel, till they have tried it in Colouring, for there are three or four sorts of Woad proceeding from each Time of Cutting; 'tis ripe in *June*; sometimes two Cuttings, and so on every Month while the Season lasts: Often in making up they put two or three Times Cuttings together, but the first Cutting is the best, which is called the Virgin Woad: The less Mixture it has the better; the manner of Seasoning is thus; when every Crop is cut, ground, ball'd, and dried as  
dry



dry as possible, and laid up, every Crop by itself; then take either first or second Crop, or more of your best sort and grind them to fine Powder, and lay it on a Floor on a Heat or Couch, and mix it with Water, and turn it over and mix it again; then turn it again over, and give it as much Water as it will soak, but not drown it; it must be turned in the Couch once a Day, for 3 or 4 Weeks; then twice a Week, till it comes to a right Colour; many Hands must be employed in carrying of Water at first till it is soaked; you must not let it heat too much, but keep it in a moderate station, which you may prevent by turning of it. In the Couch it will alter and change Colour divers Times; it will be hoary, mouldy, and frosty, and smell strong, and in a little Time black; then it will hoar and mould again, and change whitish; and after this second Change, it will come to a perfect black; which the brighter and clearer it is, the better; this is generally the Winter Work: Then lay it up in Heaps, with a Pole in each Heap, to prevent it heating again; and so let it lye for Sale. It has bore many Prices, from six Pounds a Tun to twenty or thirty Pounds a Tun; and doth generally pay the Master well after all his Care, Trouble and Expence.

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*A Supplement to the Chapter on WOAD, &c.*

**T**HIS is a very valuable Plant for dying an Olive Colour, and grounding and setting of others of the darker colour'd sort into Woollen Cloth. Its broad Leaves require a rich Earth to grow in, for they are gathered several Times in Summer, and therefore draws much of the Earth's Virture to maintain them. The Charges of the Woad-house, Mill, and other Utensils, Land and Labour, as Mr. Trowell observes, are very great, yet a handsome Profit seldom fails of being the Owner's Reward, and much good may it do



do them, for I am sure they live a great Part of the Year in a stinking Air, caus'd by the corrupted Woad, that must go under a Fermentation and Putrefaction before it can be cured. I have rode at some Distance by more than one of these Woad-houses, and suffered much by the horrid carrion-like Stink that proceeded from it. It imployes Ground and many Hands, and sells well, and therefore deserves Encouragement. Its Culture and Management being open in the Field and House, may be freely learned; and as it is very subject to be hurt by Flies and other Insects, in its infant Growth, I know of a certain Ingredient (not any Powder) that will assuredly prevent this Damage, and not hurt the Woad. There is an old Account given of the Quality of Woad, which if true, is somewhat surprizing, that where a Plantation of Woad is, it is a Folly to keep Birds near it, because their feeding on its Leaves, breeds a Distemper in them that kills. There is no such thing as rightly performing this sort of Husbandry, without the Skill and Assistance of a Workman that has been employed in the Business, and such a one may be best had from a Woad-house, two of the greatest I see in my Travels, one between *Bath* and *Bristol*, and the other between *Barking* and *Grays* in *Essex*.



## C H A P. VI.

### Of M A D D E R.

**M** A D D E R is also a Plant that the Dyers use; it is of a red Colour in dying; and is what they make, as they call it, their best solid Red. It is planted  
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of it in Gardens, for the Use of the Apothecary, being medicinal ; when it is well cultivated, and Care taken of it, it will produce great Profit ; there hath been Attempts made to gain a Patent from the Crown for the sole making, but 'twas not granted, though it would have been of great Advantage in general for to have encouraged it, and have made it one of the Staple Commodities of the Nation.

The Seed of it is not so well to be carried on for the Work, as the Setts from an old Root of one or two Years old ; they are to be had of Gardeners, who keep them for this and other Uses. They are to be drawn in *March* and *April*, or as soon as they are sprung forth of the Ground two or three Inches long ; let your Setts have some Fibres of the old Root to them, or else you may run the Hazard of losing them, if a dry Season happens ; when you take the slips from the old Roots, put them into a Basket with some Mould, to keep the Winds from hurting them, being tender. Your Ground that you put them into must be well prepared ; and, if possible, the Manure sowed on it before *Christmas*, and plowed then also, by which the Ground will be well prepared to receive the Setts in *March* or *April* ; it must be a warm Soil, and ploughed deep, or dug so, and laid very even or level, then run it out in long Beds, about one Foot or more asunder, put in your Setts about a Foot asunder, and if a dry Spring, they must be watered, until you may perceive they have recovered their transplanting ; you must hoe it or weed it, that they may not annoy the Plants, though 'tis but like a Weed itself ; good weeding the first Year is the best Preservative unto it, and some few Setts may be taken off, but 'tis not so well as the second Year, when you may take up what Setts you please ; always leave one or more to top or draw the Plant ; then you may get what you want for the Dyers, Drugster, and Apothecary, and the Setts to plant again : In taking up the Root

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there will be, as it is observed, one Runner, with little Buds out of the Ground set upright, which will make many good Sorts ; but the Madness must first be got, before those can be come at : When a Crop is got, it must be carefully dried, as you do Hops. The Workman must pare it to get out the Husk, which, though not so valuable as the other, is worth about ten Shillings a Hundred : Then there is another sort, called the Number (o) which is the middle Rind, that is not worth so much as the third sort, called the Crop Madder, by a sixth Part ; but the Crop Madder is the very Heart and Pith of it, inclining to Yellow. This best Madder is worth Eight or Nine Pounds a Hundred ; and the Number (o) is worth about Six Pounds, and sometimes less. The Dyers use great Quantities of it each Person ; and if it was well cultivated in this Kingdom more, it would enrich it much.

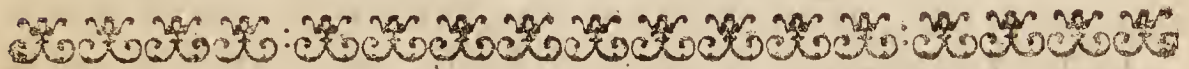
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*A Supplement to the Chapter on MADDER.*

**M** A D D E R is a Plant that has been wrote on by several Authors, but to little Purpose, for this Vegetable is so little cultivated in *England*, that there are but very few indeed that knows where to go to be instructed in its Management, which is somewhat surprizing, since it agrees with the same Ground that Liquorice does, which is of the sandy loamy Kind, and requires, like that and Saffron, three Years Time to be in the Ground. But the husbanding it is not to be so well taught by Books, as to make a Person a complete Artift, because it is a difficult Matter, even after this Madder Root is grown to Perfection, to manage it afterwards, for it may be greatly damaged in the cutting and sorting of it. However, as it is a most useful Root in medicinal Cases both for Man and Beast, as well as for Dyers Uses, and sells for large Prices.



Prices. It is a Pity there is not Encouragement enough given to plant it more at home, to prevent its Importation from abroad ; a Thing that might be easily done, if a publick Plantation was made of it near *London*; for Persons to resort to at their Pleasure to instruct themselves in the Management of it by ocular Demonstration.



## C H A P. XVII.

## Of SAFFRON.

**T**H E R E is another valuable Commodity, and that is Saffron, of which this Nation enjoys the Benefit of the best Sort ; and as this Saffron is medicinal, and very sovereign as to its Effects in many Cases, therefore 'tis coveted in every Place, if it could be made to grow freely ; but the chief Place is at *Saffron-Walden* in *Essex*, and Part of *Cambridgeshire* ; and in many Gentlemens Gardens, where Ground is prepared for it.

The properest time to raise a new Plantation is about *Midsummer* ; when you have prepared your Land in Field or Garden, being a light dry Ground, if a little loomy the better, then make your Beds with a proper Space to walk of each Side together, without treading on the Beds ; then plant your Roots about three Inches deep, and about two or three Inches asunder, and so do till you have filled the whole Ground or Bed in each Spot ; it may yield you a tolerable Crop the first *September* after sown, but the second Year more ; and the best time to use the Manure on the Land is about *Midsummer*, when all the Leaves are off the Ground, and by *September* you will find a great Strength in the Roots, as well as Flower ; it cannot be said any Addition of

Chives will come, there being only two or three as has yet been observed, but that may be thicker and better in Kind, by which a greater Weight may be produced in the Bulk ; it must be watched in the Morning, else the Sun dries it up and spoils the Chive ; the Beds produce Saffron for near a whole Month when it comes to blow ; when you have gotten the Saffron, it is commonly dried in a Kiln made of Clay, with Charcoal ; and, it is said, three Pounds wet will dry to one Pound, which, I conceive, is over-doing it, and must prevent the Virtue of Saffron to act as it would, not so dry ; for that Juice so dried, can never be recovered for any Use ; though it may be said to keep better so dried, and longer, being moist in Nature : I have known small Quantities of an Ounce or two gathered in a Garden, put only in a Bladder, and kept in the Pocket ; which small Quantity so dried hath been kept two Years, or more : and one Chive or Blade so dried, have answered as much as three or four of that dried by the Kiln ; but larger Quantities can't be thus dried ; but it is only observed, that it may be dried too much ; for if the Juice of Herbs was so dried, whether they then would emit or yield as strong a Juice as being dried in a moderate Way. An Acre of this Saffron has produced fourteen or fifteen Pounds ; but if seven or eight pounds, it does pay well : It has been sold from one Pound Sterling to Five Pounds a *lb.* And it may be worth thirty Pounds an Acre, or more, if the Season hits.

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*A Supplement to the Chapter on SAFFRON.*

**I** HAVE been in a Saffron-Plantation at *Kesteven*, about two Miles distant from *Saffron-Walden* in *Essex*, where I met with a Person so industrious as to inclose two Acres of Ground, of a very poor Nature of itself, but well dressed before planted in the common Field, and secured with rodded Hurdles, that were to stand  
three



three Years on the Spot of Ground, till he had enjoyed the full Profit of his Saffron-plantation ; by which they entirely secure it from the Damage of Hares, who would certainly destroy it, if they had Liberty to come at it. Here I could not help being surprized on Sight of a considerable Number of Women and Girls gathering the Blue Flowers of the Saffron, at Break of Day in *September*, while they were open before the Sun gets much power to dry and inclose them. The Soil seemed to be a chalky poor Loam, that after three Years is left to be plowed up and sowed with Corn, and another new Piece of Ground inclosed in the like Manner for the same purpose. Now as our *English* Saffron is the best of any, and sells for the greatest Price, I am persuaded that many Gentlemen would cultivate this profitable Plant, and thereby greatly improve their poor Ground, had they a true Notion of cultivating it, by planting its off-set Roots at a proper Season. If any Gentleman therefore thinks fit, I will ride with him to this Saffron-plantation, and there have him instructed in the practical Cultivation of this profitable Plant ; and if he will come at the Beginning of *June*, he may buy what off-set Roots he pleases to transplant to his own Ground. I live about one Day's Journey from these Saffron Grounds, and must own it much surprizes me, to see thousands of Acres of poor Earth go without this most profitable, cheap, easy Improvement, that are really most fit for it.



## C H A P. XVIII.

*Of MEADOW and PASTURE GROUNDS.*

THESE Grounds should be sowed with the Manure, sixteen Bushels to an Acre, before *Christmas*,

*mas*, that it may receive the Moisture of the Winter Showers; and when the Spring comes on, you'll then see the Benefit of the early sowing of the Manure; which will not only feed the Roots of the Grass, but doth encrease and bring forth a new Sort of feeding Grass of the Trefoil Kind, &c. if the Land had none before, though any Grass Ground may be sowed with the Manure at all Seasons, when the Grass is short, and the first Rain that falls prepares it for the Act of Vegetation; but the Winter Season is the properest Time, which all will find that use it.

Ground sowed with this Manure produces such a Grass, as all Cattle delight in; as hath been experienced by those that have sowed a Part of a Ground, and left the other without sowing any Part of it; for the Cattle have fed on the Part manured, and kept it bare, when the other Part has grown, and been ready to mow, and neglected it; and it will make Cattle thrive faster than any other Ground adjoining, and not manured.

Sheep feed extraordinary on the Lands sowed with this Manure; and, what is more, that they will never rot, where it is continually sown: and will cure the same, if not too far gone before they are put in: Especially if the Ground is not too wet, and they have the Advantage of lying dry.

Likewise those Parks that have been sown with this Manure have produced better and fatter Venison, be it of Buck or Doe, then was fed there before, and much sooner. The mowed Lands have also had much greater Crops for Hay, and the Hay so much better, that every one by feeding their Horses, or other Cattle, with the Hay, will presently experience, by the great Improvement of them that are fed with it.

Also Bowling Greens watered with the Lixivium of the Manure, soaked or sowed on it when the Worms &c. come up, will destroy them, and rid them of all those troublesome Reptiles; for none will live where 'tis either watered with or sowed on the Ground, as  
hath



hath been experienced by those who have tried the same ; and will keep it in the best Order for the Use of the Gentlemen of Pleasure. Grass Seeds sown at the Time with the Manure, either before or after, will produce an incredible Crop the next Season.

Now as to the feeding of Beast with Hay, every Country have not the Method of making their Hay suitable for that purpose ; for those Countries that do feed Cattle with Hay to fat in Winter, generally cut or mow their Grass while the Sap is in it, and don't let it stand till it is dead at the Bottom ; for then the Hay has not that Sweetness, as it should have for that purpose for the Beast to feed on : Next let it be well made, not to let it lie in the Swarth till it is dead and musty, that the Air cannot recover ; but let it be tedded as soon as mowed ; then the Hay (being daily attended) will be green and sweet, which will induce the Cattle to eat it with Pleasure, and thrive almost as fast as the natural Grass. And if it has that which is called the mow-burn (though not too much of it) the Beast delight in the Smell, and will eat it eagerly ; which causes the Beast to drink, and from thence, if the Water is good, it makes the Beast thrive the faster.

Now as there is a singular Care to be taken in the making the Hay, so there is also a Method in giving it to the Beast, in order for his thriving ; 'tis not to be taken from the Stack in Flakes, as it is put on, but it must be cut about six Inches long, with a Hay Knife made for that purpose, by which Means the Beast will with more Ease chew it sooner, and fill his Belly ; and when that is done, lie down with Pleasure to chew his Cud, for then he thrives ; but if the Hay is long when given to him, 'tis some time before he can chew it, to swallow it, so as to get a Belly full, that he'll be tired before he can fill it, and never get fat ; then it must be given to him a little at a Time, and often, by which Means he will not blow upon it ; for if he does, then he will refuse it, and will not eat it.

Now to prevent this Inconveniency, it is proper to put your Hay Stack in the firmest or dryest Ground you have, that will not potch or tread, and so rail or raddle it about: and when you come to fodder your Beast, add a little raddle Hedge, about two Foot high, and about three Foot wide round your first Rail or Hedge; and there put your hay (it saves a great deal of Labour in carrying of it about the Ground, or if you put it in a Rack for that Purpose, and less Waste) the Beast will eat it without treading on it, and hunting each other, though the Master Beast will pick where he likes.

Now when they have filled their Bellies, it is very much for their Advantage to have a running Water to go to drink at; for Water is the Life of every thing, and in nothing more than in Cattle. Standing Water (except it is a large Water, where the Air and Wind serves to purge it) is not so good for Cattle; for when they enter into small Ponds to drink, they, by their Treading, spoil it for a whole Day: by which Means the Cattle stands round the Water, and never drink, being always desirous, but will not touch it, which hinders them from thriving for want of good Water, for no Cattle thrive that do not drink heartily; and if the Ground is large you fodder on, it is the better, or two, if they open one into the other; for they are pleased, and seem to lie at more Ease.

Now as to the grazing Part, the feeding Cattle on Grass Ground; the first Care is to have for your Cattle good Water; for if your Grass Ground is not of the best Sort, they will gather Flesh, and by length of Time will be fat, but not so soon as where the Cattle have Grass and good Water to feed and drink of, as they have in many Parts of this Kingdom, viz. in the West Country, in *Buckinghamshire*, *Northamptonshire*, *Bedfordshire*, *Warwickshire*, *Lincolnshire*, *Kent*, *Sussex*, *Essex*, and the Marshes in *Middlesex*, &c. in all which Places great Numbers of Cattle are fed; and by the  
Manage-



Management of them in Order, brought sooner to Market, for the Benefit of the Feeder. For if the Land is not strong enough to feed an Ox off without changing, they must be shifted often to fresh Grass: It is a great Advantage to the Feeder to have several Grounds to shift often, which bring Cattle forward very fast; and in three Weeks or a Months Time those Grtunds will be ready again to receive them; which does add very much to the fatting of them.

In many Places, where Grounds are large, they feed Beast and Sheep together, which is not so well, if possible to be prevented, be the Ground ever so large; for where Sheep feed they will stain the Grass, neither will the Beast eat where they have been to feed and lie on. Therefore, if possible, the Sheep should be kept in a Ground by themselves, or to follow after the Beast, for they feed closer to the Ground than the Beast can; for a Bullock or Cow licks in the Grass with his Tongue, which is by Nature provided with a Roughness at the Tips so that they require a Length of Grass for that purpose; and Grass cannot well be too short for the Sheep, they feeding better on it, and will be sooner fat.

I once was in *Northamptonshire*, near *Clay Coton*, where their Grounds are pretty large; and it was their Custom to feed Beast and Sheep together, as in many other Places: I persuaded a Gentleman to feed his Beast by themselves, and to let his Sheep follow his Beast, as they were shifted into fresh Grounds; and he told me himself, his Beast and Sheep did both grow fatter and sooner, and both Sorts paid better that Year than usual; and I presume never left it off, after he found such Benefit: And many Times the Feeders buy their lean Beast out of the Yoak, and are work'd very poor; those Beast, when they are brought to fresh Grass, are apt to surfeit: Now these should be blooded in about ten Days, which makes them thrive the better; also those weak Beast are subject to the Tail Evil, which is

Worm at the lower End of fleshy Part of the Tail which is hollow, and will not thrive: To remedy this, take his Tail, and spread his Hair at the lower End, then cut off a Joint or two of his Rump, which will draw out the ill Blood; by doing of which, it may be a Means to fill his Points backwards, *viz.* his Cod, Twist, and Flank; and by so doing, it helps all other in those Points, and make them thrive much better.

I was once at a Gentleman's Seat in *Hertfordshire*, in the Month of *April*, and walking with him in his Park among his Deer, I perceived there was much more Grass than his Deer would eat, though but about a hundred Acres. I persuaded him to let his Steward (who was going along with me into *Lincolnshire*) buy him twenty Beast, to feed among the Deer: He gave Orders accordingly, and the Beast came up the Beginning of *May*, and in *January* following (after a little Hay was given to them, the Grass being short) they were sold in *Smithfield*, and paid for keeping above 100 *l.* being more than the annual Value of the Land of the Park, and never a Deer fed the less; being about sixty Head of Deer kept in it; for Beast and Deer feed well together, the Beast eating the longer Grass that the Deer will not eat, for being in Nature like Sheep, they commonly feed on the shortest Grass. By which means many Noblemen and Gentlemen may make an Advantage of their Parks that are large, more than at present they do.

Now as Water is so great a Benefit to all Creatures, so it is, or ought to be, the Care of all to endeavour to find out this only Thing necessary: And it hath been the Enquiry of many to search for it in Lands that lie high, and the Grounds naturally dry. And among the many Attempts, one is very good, if practicable, as it hath been related in *Yorkshire*, that a barren and dry Ground has been bored many Fathom deep, till they met with what they call a Grand Spring, which they bore through to, and that shall cause a perpetual Flowing above  
Ground,



Ground, tho' many Fathoms deep. Now if such a Spring is found in a Ground that hath a Declivity, it may be led to many Grounds, by a Ditch or a Rivulet cut from Ground to Ground, to any Place or Corner of several Grounds to supply each with what Quantity they please; and when that shall be full, to divert it to any other by the same Means: If this is practicable, as has been certified, no Ground may be in want of Water in any Place: Thus Water may always be had, and at no very great Charge, it being related that it cost not above four Guineas, and they boared twenty Fathom, through several Kind of Oars: 'Tis conceived that many Noblemen and Gentlemen would willingly gain Water, if at a greater Expence, besides the purchasing of Bores to search for it. This the quickest Way of any to raise Water; and in those Countries where they bore to find the Ore of Iron, Coals, &c. the Charge will not be great; and where they are not used, if several Gentlemen were to join for one, the Charge would be but small, and they would find their Account in it.

As the beforementioned is how to procure Water to dry Lands, it will be as necessary to know how to drain Lands that are too wet, and to carry it off from those Grounds which are too wet, which many are subject to in several Parts: If the Waters lye only on the Surface of the Ground, opening the Ditches round the Ground, and cutting narrow Rills of about a Foot wide and deep, will drain that off; the Land will be dry, and become good Ground, if the Water by ill Husbandry has not lain too long; but if the Field is large, and a great deal of Water on the Land, the Ditches must be the deeper to receive the Water; for the Ditches dug on each Side of the Ground may be so ordered, as to keep most Land dry, (except there are many Springs in the Ground, which must be performed another Way) especially if there is any Current to carry the Water off; and the Earth that is dug out of the

Ditches

Ditches round the Land, when it is mellowed by lying a little while, is very good to be spread on the Grass-ground, being fresh Earth, which will revive the Grass Roots exceedingly : 'Tis not so useful on plowed Lands, because the Plough turns up fresh Earth whenever it is plowed.

Now those Lands that are spewey, and full of Springs, and are so tender that hardly any Creature can feed on them, are to be cured in this Manner : If the Ground has any Declivity, then open that side of the Ground by a large deep Ditch, according to the Compass the Ground is of that is to be drained, if the Springs are many, it must be the deeper and wider, to about five Foot deep, and about four Foot wide, as the Quantity of Springs are, which must be your Rule ; then open Rills in several Parts of the Ground, of about 2 Foot deep and a Foot wide, and leading cross the Ground into one or more Rills, till they all run into the great Ditch ; after that fill each Rill with Stones, about the Size of Eggs or bigger, up to near the Surface of the Ground ; then cover the Top with Turf. These Rills will never choak, and the Water will pass away between the Stones, and make the Surface firm, if you keep the grand Mouth open ; so your Work is done for many Years, and your Land will become good. This Work has been done by Bushes, &c. yet this is the most certain, for they decay and rot ; but this is always the same, as many have found by Experience, to their great Profit, who have taken Land that has been of no Value, and made it good Ground ; and it may happen that many Grounds are spewey together, then let a large Pond or Gutt be made, to drain all by the same Rule : The Pond will supply all the Grounds, if it can possibly be made in the Centre of them, putting on each other.

Now this is not directed to drain large Fenns, that must be done another Way, by large Cuts, like a small River, and Mills.



*A Supplement to the Chapter on MEADOW, &c.*

**T**HERE is such a Difference in both Upland and Lowland Meadow-Ground, that one Acre of either, by bad Management, may not yield a first Crop worth more than five or ten Shillings ; when the same, by good Management, might yield a Crop to the Value of three Pounds or more. This I have seen verified, and been Instrumental in recovering and improving the same Ground. To enjoy a Meadow Ground in the highest Perfection, it is to be done three several ways. First by converting plowed Land into a delicate thick planted profitable Meadow. Secondly, by recovering and improving an old decayed one. And Thirdly by watering them. As to the first, of bringing plowed Ground into Meadow Ground, I have to say, that the plowed Ground, be it of what Nature soever, if it is to be laid down for lasting Meadow, it must be brought into a perfect fine Tilth Condition, by several previous Plowings and Harrowings ; for which Purpose Ground cannot be made too fine and too hollow, because on this depends the Success of the new Crop of Grass, for what can be finer and tenderer than the thready Capillary Roots of Grass-seeds, especially such that I shall in this Chapter give an Account of ; and as they are thus fine and tender, how can they enter and strike into an Earth, unless its Interstices or Pores, are made large and numerous enough to receive them, otherwise they would pine, decay, and perhaps dye afterwards ; for this must consequently be their Case, if the Seeds are sown on a hard rough tilth-ground.

After the Ground is well manured and plowed into a fine Tilth, it concerns the Owner to have in readiness a proper Seed, for as the Seed is, so will the Crops of Grass be that are produced from it, and an

Error

Error in the Beginning is the worst of Errors, and very likely not to be remedied without great Loss and Expence. Wherefore I here propose one of the best Sort of Grass-seeds (if not the best of all) in the World, which I call Lady-finger Grass-feed, and am the very first Author that ever so plainly exposed it in Print, for by many Years Experience, I know it to be a most excellent Grass, as having it growing in my Meadow close to my House. Its Character take as follows, *viz.*

Milk, says a Physician, is in its own Nature healthy, or more or less so, as the Feeding of the Cows are, and the Disposition of the Cattle. Now though Lady-finger-grass is proved by Cattle to be the best of Grasses, for when they come into a Field to feed, they eat this first and before all other Grasses. It is a true, hardy, natural Meadow-grass, that exceeds in Goodness all other *English* and foreign Grasses; will grow in the richest and poorest Ground of any Sort; and in wet Summers, in rich Land, it will branch into many Stalks Knee high. When Cows are fed with this Grass, it produces the wholesomest of Milk for Christians, with Abundance of thick fine-tasted Cream, and as such is preferred to be mixed with Tea. It also makes the sweetest and most yellow-coloured Butter and Cheese of any Grass whatsoever; and for these Reasons People drink the Milk of this Grass warm from the Cow, as believing it best conduces to their Health. The green Stalks of this Grass, and so will its yellow Flowers, retain their Colour a long Time, when made into Hay. In Grass or Hay it invites and feeds Lambs, Sheep, Fawns, Deers, Bullocks, Oxen, Colts, and Horses, &c. fat with great Expedition; is excellent for Saddle, Race, and Coach-horses, and will produce a Flesh of the sweetest and wholesomest Sort in Lambs, Sheep, Deer, or Oxen, and tends very much by its warm dry Nature, to prevent the Red  
Water



Water and Rot in all Cattle that feed on its Grass or Hay.

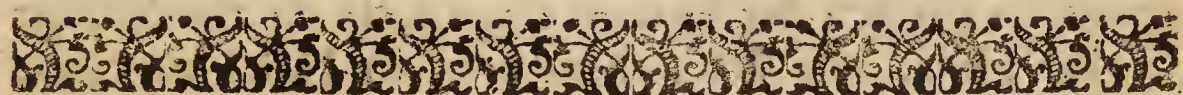
Hence I am led to observe, that it has been an antient reigning ill Custom, even to this Time, for Persons to lay down their plowed Ground with a promiscuous Mixture of Common Grass Seeds, by which they generally sow coarse Bennetty Seed, Penny-grass Seed, Plantane-feed, Dock-feed, Yarrow-feed, and too often those Sorts that cause Cattle to refuse eating them, till they suffer much by Hunger, and there are undoubtedly some Weedy-grasses more of a poisonous than a wholesome Nature, for we now and then find Horses, Cows, Sheep, and Deer, &c. become sick, and cannot account for the same, when perhaps their Sickness and Death may be occasioned by some pernicious Grass that grows in a Meadow amongst a better Sort. Now where plowed Ground is thus lain down with this Lady-finger-grass Seed, and two other natural Sorts that I commonly sell with it, a Gentleman may depend on being Owner of only the very best of Grass and Hay, free of those noxious Grasses and Weeds that generally infest Meadow-ground ; which was I to write particularly of, it would take me up more Paper than this Supplement will allow me to make use of. And what is also of great Importance, and very valuable in this new Piece of Grass Husbandry, such plowed ground so converted into the finest of Meadow, may be made to last in its pristine Perfection Scores of Years, by good Management. Here then is an entire new and cheap Improvement offered to the World ; I call it new, because, as I said, I am the first Author that have made this valuable Discovery ; and I call it cheap, because the first Charge is only once for always, as to the bringing Arable Land into grass Land, for such it may be kept Time out of Mind by the Application of timely and proper Manures. On this Account I have Reason to applaud the ingedious Endeavours of several Gentlemen, who, by taking the Hint of the good Qualities



lities of this noble Grass-feed, mentioned in my Modern Husbandman, have bought some of me (for there is none of this Seed sold at any Seed-Shop in *London*, nor elsewhere) and sowed in the last Spring, 1746, for this is the best Season of the Year to sow it in. And for doing it in the quickest and least expensive Manner, the Grass-seeds may be sown when Barley or Oats are sown, and harrowed in the Ground with them, in a Manure I shall acquaint any Gentleman with, that thinks fit to send to me for the Lady-finger-grass Seed, and two others; for by this Method there is no Time lost, because when the Grain is mowed and carried off, a Crop of these Grass-seeds will appear, and in the following Summer, it may be eat or mown. To this I add, that if Gentlemen would but consider the great Benefit that may thus arise from the Use of this profitable Grass, and the Hay made of it, particularly for the great Service its fine Hay does in a wet and frosty Winter and Spring Season, by its provoking Lambs, Fawns, yearly Heifers or Bullocks, Colts and Rabbits to feed on it, I do not doubt, but I should have many Orders sent me to furnish Gentlemen with this Nonsuch-grass-feed. A Seed, though a natural Grass-feed, may be sown to great Advantage in Drills, at a Foot asunder, out of the four-wheel Drill-plough, as well as in the broad-cast Way. In the next Place I am to give an Account how to recover and improve old decayed Meadows. This I will do in a different Manner from all other Authors. In the Month of *February* let a Person sow common Hay-seeds out of his Hand in the broad-cast Way, all over the Meadow; let them be of the best Sort from Upland-ground, and not from Marshes and swampy Lands, he cannot sow them, too thick; and as soon as this is done, let him employ a Horse-roller of Wood, or of Stone, or of Iron, but our eight Foot long Roller is made of Wood, and this will squeeze the Seeds into the Earth, that at this time of the Year



Year is made soft by Rains, and pliable enough to receive and quickly vegetate the Grass-seeds, so as to become a full Crop of Grass the same Summer, especially if Coal or Wood Ashes, or fine short rotten Dung or Soot is spread over them, and rolled in with them; or if Hay Seeds are not to be got, Clover or other such Seeds, may be rolled in upon such decayed Meadow-ground to a good Purpose; and for improving such Grass-ground by watering it; if it can't be done by running Water from Springs, it is possible to do it by a Vessel that has a perforated Discharge in a Cart. Or if the Land lies low and too wet, Cross-Cuts, two or three Foot into the Ground, so as to discharge the Waters into some River, Pond, or Ditch, may be a Cure; and if they are filled up with Stones or white or black Thorn Bushes, and Turf laid over them, the Meadow will not only be made dry, but also firm for Cattle to tread it without Damage.



## C H A P. XIX.

## Of H O P S.

**H** O P S are become an universal Commodity for the preserving of Beer, though formerly very much decryed, and are used in almost all Parts where good Drink is brewed, that is intended to be kept long; and not only so, but they bring a great Revenue to the Crown: Therefore the Increase of the Plant will be of great Service, which may be done by pursuing the following Method.

When you dress your Hills in the Spring, put about two Quarts of the Manure in each Hill, mix it very  
G well,



well, that there be no Lumps remaining in the Earth ; this will add a Vigour to the Roots of the Hop, and will make them shoot strong Vines, and prevent the Worms, or other lurking Enemies that prey on the Roots ; and does give the Vine such a Strength, that it will get the Master of a dry Season, by which it may produce a good Crop ; when sometimes a weak Vine may be destroyed by the Extremity of Drought. Then, about the Time that the Hops blow, or bell, add about two Quarts of the Manure Liquor to each Hill ; do not let the Liquor touch the Vines of the Hops, but pour it at a little Distance, which will feed the Roots ; do not put more, for that will be sufficient.

Now as to the planting the Hop of the Suckers or Off-sets, they are to be in *March*, after the Hills, at the proper Distances you like, are made : Your Plants must be eight or ten Inches long, and in each three or four Joints ; then dig the Holes you intend to put the Setts in, about a Foot deep ; and the same over, to make the Earth light, to prepare it for the Sett to shoot the better ; set two or three Setts in the Middle of the Hole, and hold them in your Hand together, while the Earth is put in ; let the Tops lye even with the Ground ; also let the same End be uppermost, as grew before ; then press the Earth well about the Roots, if your Bed is large as some make them, then you may put a Sett at each Corner.

Now when your Ground is full planted, and the Hills made up to the proper Height you design them, and cleared of all Weeds, &c. which may be done either before or after they are poled, according to the Forwardness or Backwardness of the Spring. At *Farnham*, it is said, they make their Hills when they cut and cleanse their Hop Roots from their Suckers : Others direct to make them after they are poled, and tied to their Poles, which is to be done when your Hop is grown two Foot high ; bind them then with a Rush or long Grass ; place your Poles strong in the Ground,



Ground, to prevent the Wind from raising them, which will endanger your Vines and Roots. Place your Poles outwards, rather than to lean inwards, to prevent their growing or laying hold of the other Vines, which will make too much a Shade, and prevent their Blossoming or Belling, and not ripening; let your Gardener continually be a paring up the Weeds that grow, and make up the Beds or Hills; and when a dry Time happens, water them; lay the outside of the Hills highest, that the Water and Rain may soak, and run to the Roots of the Hops: When they begin to blow at the latter End of *July*, they bell presently after, and sometimes are beginning to ripen the latter End of *August*: When they turn brownish, either in Seed or Bell, they begin to pluck; or when they smell fragrantly, they are then ripe: Employ as many Hands as you can get, for they will scatter, and then the Wind does them Damage: When you gather them, prepare a Place in the midst of the Garden, by levelling it, and watering and treading of it like a Floor, to lay them on for Picking: On the Outside of it sit the Pickers and pick them into a Basket; pick or strip the Hops from your Poles: When the Floor is filled, clear it and sweep it; some use a Hair-Cloth, or a Blanket, on a Frame of short Poles set on four Stakes, on which lay the Poles with the Hops on them, and pick them into the Blanket, and when it is full remove them; which Frame may be removed as you please from Place to Place: This Way saves the stripping the Hops from the Poles; and no broken or scraggy Poles hinder the Picking; neither are any scattered in the stripping, as will be otherwise, and is sooner done: When you draw the Poles, if any grow on two Poles, divide them; and when you cut them, let them be two or three Foot above the Hills to prevent the Vine of the Hop from bleeding, else it will draw the Strength of the Root too much, and so weaken it: Draw no more at a Time than you

can pick in an Hour or two, for fear of Rain: If you have a very large Garden, you may provide a Shed, under which you may pick your Hops, which will defend both the Hops and Pickers from the Sun and Storms if any should happen; gather no Hops wet, or the Dew on them; let not your Hops be over-ripe, for then they will shed their Seed, which is the chief Strength of the Hop, and lose their green Colour.

Now as to the drying of Hops, some use the same Kiln as for Malt, and lay them about a Foot thick, and in about twelve Hours they will be dry enough; they must be dried without Smoak: Some dry them with Charcoal, but others use an Iron Furnace, about two Foot square, with a close Grate, into which they put Sea-coal, having a Vent to convey the Smoak; which Iron Furnace being kept glowing hot, gives Heat enough to dry them; nor doth the Smoak of the Seacoal annoy the Hops, because it is kept in: Others dry their Hops with light dry Wood, and some with Straw, and use the same Care that they may not be annoyed with Smoak. You must not bag them as soon as they come from the Kiln, for then they will crumble to a Powder, but lay them in some Room to toughen again, and then bag them: When bagged, put them into a dry Place, and they will keep several Years.

After all your Work is thus done, when your Hop-Poles are dry, lay them in a dry House till they are wanted again; though some set them upright in their Hop-ground, one against another, till such time as they are wanted; but this decays them sooner.

### *A Supplement to the Chapter on Hops.*

**T**HE Improvement of this universal sensible Vegetable, consists chiefly in these several Branches  
of



of good Management, viz. the Situation, the Soil, the Sort of Hop, the keeping the Alleys and Hills in a constant Fineness, poleling them and drying them. I shall here only hint of keeping the interval Ground clean between the Rows of Hops, free from the growth of Grass and Weeds, for if these are suffered to grow in the Alleys, they will employ the Earth's goodness so much in their Nourishment, as to lessen and backward the growth of the Hops. This I take to be one main Point for obtaining a full Crop of Hops, and to do this as it should be, it puts the Planter to more or less expence, according as he manages it, and the Management of this has been so expensive to some, that they have omitted it, and suffered their Hop-alleys to be over-run with Grass and Weeds, to their very great Loss, partly for want of knowing how to do it in a cheaper Manner. And if a Manure was sown over a rough, grazey, weedy Alley-ground, the Consequence would then be, that such Manure would nourish and increase the growth of these Weeds, and deprive the Hop-roots in a great Measure of its Assistance. To remedy this Evil with the greatest Expedition, and with the least Expence, is the Design of this my Supplement on Hops. Wherefore I have to say, that it was formerly, and is now in many Parts, their customary Way to dig all the Interval-ground between their Hop-hills with a Spade, and in other Parts with a Peck-hoe, both which I must own are sure, but very tedious and chargeable ways of performing this necessary Operation: Now as I am obliged to forbear publishing the Cuts of these Instruments in this my Book of Supplements to Mr. *Trowell's* Work, I cannot show their serviceable Makes; and therefore I must recommend my Readers, for their better Information, to my Monthly Supplement to the Modern Husbandman; for in these Monthly Books I intend to have them, and many other Cures fixed, that are an actual Use at this Time as new Improvements in Husbandry; but for these five Sorts

that are employed to cleanse the vacant Ground between the Rows of Hop-hills, and prevent the growth of Grass and Weeds, I have to say, that two of them are Horse Instruments, and three of them Hand Instruments, worked by particular Persons to loosen and hallow the Earth of Hop Plantations, to kill all Grass and Weeds, and to prevent their Re-growth. The Horse Instruments are well contrived for this Purpose, yet not so well, but that there is Room for an Improvement upon them. Accordingly I intend to publish one I think will answer this, to the Satisfaction of all that shall make use of it in Hop, and some other sort of Ground, because in large Hop Plantations, it will save Time and Labour to a great Degree of Profit, and yet do its Work very effectually, and indeed so well as to prevent the Charge of Manure; for by keeping Ground in a fine tilth pulverized Condition the Air and Rains have free Access to the Hop-Roots, and thus they may be furnished with sufficient Assistance to push forward a timely Growth of a full Crop of Hops, almost free that destructive Hop Malady, the Mould, which I take to be in some Degree owing to a hard surface that retains Water so long above Ground, as to cause their Effluvia or Vapour to ascend, damp the Hop, and breed the Mould. And thus a Plantation of Hops need not cost Twenty Pounds an Acre every Year, because one main Charge of Hop-husbandry, is keeping the Alleys clear of Grass and Weeds, which will be mostly prevented by the Horse Instrument, that will excellently well do this in their broad Alleys of 7 or 8 Foot wide, both in Quickness and Deepness.



## C H A P. XX.

## Of FOREST TREES.

*Of the O A K.*

**T**HE Oak being the chiefest Tree in the Forest, for the Support of the Shipping, may from thence be counted the Bulwark of the Nation; therefore we ought, as much as we can, to encourage the Increase of the same, and to preserve it in every Country, but especially in those near the Sea, or Rivers, for the more easy Carriage of it: And though we have had many Acres destroyed by the Plough for Tillage, yet then the Owners or Farmers should be obliged to plant or raise of each Sort of Timber Trees in the Hedge Rows of large Grounds; which would shew they were not for totally destroying all Timber Trees, that were planted Ages before their Time; and by which the future Age might see, that their Predecessors had some Thoughts of the Security of those that were to come after.

That excellent Treatise of Forest Trees in general, written by the Learned *John Evelyn*, Esq; gives a large and full Description of the Benefit and Uses of all and every Sort of Plants for the Forest, &c. but fearing that worthy Author may not fall into every one's Hands to read and to practise his Directions, I shall here presume to give the Reader some of the most material Directions for raising and ordering some of the chiefest Trees that are for Timber; because by the same Rule, most or all may be raised of the other Kinds; not only for the Supply of Husbandry, and Utensils for Trade of many Sorts, but also Materials for Buildings, Ornament, Fuel, &c.

And first of the Oak, there does appear by the Acorns some Variety of them ; but when you intend to plant choose them from the largest and best Sort, rather when they are fallen than those plucked from the Tree, for then Nature hath brought them most to Perfection ; and, if possible, let it be a dry Time ; then lay them in some open Room to dry ; then keep them in some dry Place till *January* ; then having prepared your Land that you design to set or sow them in, if a loamy Land it is best, but every one must content himself with the Land he enjoys : The Lands must be digged and made clean of all Weeds. Then sow them in Rows, or otherways, as you please, about two Inches deep ; by the sowing of them at this Time, they may be preserved from Mice or other Vermin ; but if it is wet when you gather them, they will hardly keep so long, but will shoot out at the small Ends a little Bud ; then they must be committed to the Earth sooner, for then the Body of the Acorn will crack, and the Spear prepares to shoot into the Earth, and send forth his Leaves ; but if Seed spears forth, before it is committed to the Ground, the Spear whithereth, and will never grow ; and it is the same of Nuts, or Stone Fruit ; for Nature once set in Motion, will rather cease to be, than alter its Course ; for Nature hates Violence ; neither can the Seed receive the Precious Sperm, proceeding from its Father and Mother (that is the Sun and Earth) for in the Earth is several Breasts to nourish each Plant.

When the Acorn arises in the Spring, keep them clear of Weeds, and let them remain two or three Years before you transplant them ; then transplant them into good fresh Ground, if possible, mixing the Earth you transplant into with a little of the Manure : Let none of it lie in Lumps, but let the Ground be well mixed ; cut the Tap Root and the side Boughs, and set them as you do other Trees ; keep your Ground from Weeds, moving it gently, and pruning it yearly,  
by



by which you will obtain fair and large Trees : These Trees do not love to be removed after six or seven Years Growth, no more than a Walnut ; nor in Fact any other Tree that shoots a deep Tap Root, for then it is with Difficulty they recover ; for it is the Nature of all Trees to shoot forth one Root first, and then some side Roots, according to the Nature of the Ground it is sown or planted in : And this most stately Tree does commonly run to the Bottom of the Soil, especially in a loose Ground ; and at the End of the Tap Root it puts forth feeding Roots, and it comes to grow pretty large, it having but few Roots above. This Tree can hardly bear removing, by Reason of losing his best Support, by dismembering these Roots upon his Removal, or most of them.

Now when a Tree is removed at one, two or three Years old, then there is but a small Head, so that it requires the lesser Root towards its Maintenance ; then this Root lying not deep, and in a little Compass of Ground, may be taken up with less Loss to the Proportion of its Head.

*Note,* When you take up any of these Trees, in cutting any of the Tap Roots, and the End of the greatest of the other Roots, with a Slope lowermost, then there will at the End of the Cuttings, at that Place, put forth other small Roots, which being nearer the Body of the Tree, will be the easier removed, if any Occasion should happen to remove it again.

Now as to the removing of Trees, tending somewhat to their growth, as often in Fruit Trees, &c. then make your Holes pretty deep and wide ; and if your Ground they are removed to is not very good, then prepare the Ground with some better Mould, such if you can as the Tree best likes ; this will encourage the Growth of the Tree, and save you a great deal of Trouble, and give you delight to see your Plantation thrive, and may save you, after three or four Years, a replanting again, by taking a little Care at first. The  
Clay



Clay Grounds produce large Oaks ; yet they are slower of growing, but more holding than any other.

When you remove your larger Trees, it is proper to open the Ground well round your Tree at a Distance, to prevent cutting too much of the Roots when you take them up, and with it as much Earth as is possible (if not too far to carry) it will put the Tree in less Danger ; such Roots as you find bruised, or much cracked, cut them off, till you come to a firm Part ; such Trees as are of slow Growth, as the Oak, &c. you may prune up to a small Head ; and if your Tree be taper and strait, you may prune such a Tree to one Shoot ; but if not taper, then leave two side Boughs or more, to receive some of the Sap, which will make the Shoot you intend to lead to make the Body of the Tree the smaller, and so your Tree will be taper ; but top all your Shoots but the leading Shoot, which will make the Body of the Tree swell the more, and hinder them from prejudicing the Leader : If you leave any Shoots, do not leave them right against each other, for that will make the Tree too thick in that Part, but leave them one above the other, which will make the Tree grow more taper ; else you may spoil the Height of your Timber, or your Tree may grow grow top-heavy, and so grow crooked : (*This is of Timber Trees*) Thus by taking Care of leading your Trees at the first, and keeping them clear of all Suckers, especially the first two or three Years, you need not fear having fine tall Timber-trees of every Kind. If the Head grows too big for the Body, then you may leave some side Boughs to receive some Sap, to make the Tree taper ; though seldom in Oaks at the first Growth.

### *A Supplement to the CHAPTER on Forest-Trees.*

OF these I have lately wrote so largely in my Book intituled, *The Timber-Tree*, sold by Thomas Osborne



*Osborne in Gray's Inn*, that I have but little to say here ; and that is, that whoever attempts the raising Plantations of Oaks, Beech, Ash, and other Trees of the Timber Sort, will do well to consider, that the principal Matter in this Undertaking consists in a good Soil, in right Seed, and in true Management of it. As to the Soil, it ought to be in the greatest Heart for carrying forward the Growth of the Seedling Plants as quick as may be, that they may be the sooner out of the Power of Insects and Cattle's Hurt : For this Purpose the Ground should be also made as fine as possible, that the Infant Sprouts may not meet with Obstructions to prevent and hinder their Growth. As to the planting of the Seeds, there are several Ways of doing it ; by sowing them broad-cast and plowing them in, or by sowing them out of a Hand in a Furrow after the Plough, or by setting, or by drilling them. All these particular Ways was never fully wrote on by any Author whatsoever, nor shall I do it here, as having only Room just to hint on them. Acorns, Beech, Mast, Ashen-Keys, or Seeds, &c. are most commonly sown in the broad-cast Way, out of a Man's Hand, and plowed in ; and it is good Way, provided the Ground is well dressed, and several plowings and harrowings are bestowed on it for bringing it into a fine Lightness, and the Furrows are not turned up of too great a thickness, so as to bury the Seed. The like may be said if the Seed is sown in every Furrow after the Plough. But if the Seed is bad, or that the Ground is poor, or whether it be in Heart or in Poverty, yet if it is rough and clotty, most of the Seed may be prevented growing, as I have known done in a large Field to the Owner's great Loss, who instead of having fine strait Oaks come up, had only a scrubby sort in return, that would never make clear, tall, strait Tres. By drilling ; this is a special good Way to propagate Beech, Mast, by sowing this Seed out of the four-wheel-



wheel Drill-plough, in Drills, at any Distance ; for as a rich Manure may be immediately dropt on the Seed is made to push out their Sprouts with the utmost Vigour, and afterwards maintained in a most thriving Growth, so as to be enabled to withstand the Damage of Frosts and Droughts. By this Method there may be a very numerous Breed of Beechen-setts raised in the compleatest Manner, because the two-wheel Hoe can hoe two Intervals at once, and thus clear the Ground of Weeds at the same time it casts Earth upon the Roots of the young Trees ; thus such a large Number of these Trees may be raised as to give the Owner two Opportunities to his great Profit : One is by leaving a Master Plant in the Drill at such a Distance, to stand for a Standard, and make a large Tree ; the other is, that the rest of the young Plants may be drawn to set else-where, either for making Hedges of Beech, or to set at such Distances as that they may grow into single stately Trees. For this Purpose a good Manure may be of great Service, as it is of a saline fertile Sort, in keeping off Worms and Grubbs from gnawing and feeding on the Seed, which in some Grounds are so plenty, that they do great Mischief, especially where Dungs are only applied to dress the Land, insomuch that they deprive many Owners of their Hopes after they have taken due Pains, and been at great Expence to obtain these Benefits. I live in a Country that is accounted to have the largest Beechen Trees growing in it, and therefore am seldom without good Beech Mast, and the same of its Setts. Also Setts of the White Wood-tree, that in Vales, or in any moist Loams in Chiltern Countries, grow very expeditiously, and in some Places to a monstrous Size ; these, and Sollar-setts, with many others, I furnish to any Gentleman on a proper Order, and the same of Timber, Corn and Grass-seeds.



*A Supplement to the OAK.*

I N writing on this most excellent servceable King of Timber-Trees, neither I, nor any other whatsoever, have wrote so particular on its Propagation, but that there is full room left for new Discoveries in the Improvement of its Growth; toward which I shall attempt the following Essay, and hint first on the Soil: Secondly, on the Seed: Thirdly, on its Sowing; and lastly, on the Conservation of the young Trees, till they get out of the reach of Cattles Mouths. First as to the Soil. A good loamy Earth I take to be the very best sort of all others, for the most profitable Growth of this Tree, because a Sand, a Chalk or a Gravel are rather too hot, too loose, and too poor a sort for it; for it is well known that these Earths in most situations, are of so loose and warm a Nature, that they'll bear a shower of Rain almost every Day; and though Rains fall thus on them, yet there is seldom any Water stands on their surfaces, by reason their globular Parts admits of the Waters free Percolation; and thus the Roots of the Oak in very dry Seasons, are apt to pine for want of a due quantity of their watry Nourishment; therefore in my humble Opinion, this evil is much prevented where the Acrons are planted in a Loam, and mostly in that of the stiffer sort. A proof of this is fully shewn by the Oaks thriving, and growing into a bulk of the greatest Magnitude: for though in a Chalk, a Sand, or a gravelly Loam, this Tree may grow with good Husbandry quicker than in a stiffer sort, yet it never arrives here to a very large Trunk or Body. Besides which, it's Veins or Grain will always be of looser Parts like the *Norway* Oak, than that of *English* Oak that grows in a stiff Loam. It is true, a Tree is here longer growing before it comes to Perfection, then when it is planted on the Chalky, Sandy or gravelly Earth, but then is compensated by its greater Bulk,  
and



and cloſer Grain as I have obſerved. Yet whether an Oak is too grow on a Sand, a Chalk, a Gravel or a Loam : ſome proper Manure, if judiciously applied, may be made in my Opinion, to make it grow into a full Maturity in half the time, that it generally takes up to grow Wild without ſuch aſſiſtance. But of this, more by and by, and therefore I proceed to my next Propoſal, *viz.* To the ſowing or Planting of Acorns : But firſt, I muſt premiſe and take notice, that Plantations of Oak may be (and I dare ſay many are) greatly damaged by ill gathering, and the ill keeping of Acorns, till the time of their Sowing in the Spring ſeaſon : For ſome have been ſo ignorantly ſilly to baſh and beat down Acorns from off their Trees for Seed, which is certainly a very wrong method ; becauſe the bruifed Seed (if it grows at all) will never make a large Tree. Others will not beat them, but ſhake them down, which indeed is by far the leſſer evil, but even this, I take to be wrong Management ; becauſe by this, the Acorns will receive ſome Contuſion, and a little Bruiſe may cauſe them to rot in part, or in the whole ; if in part, the Tree will ſuffer in proportion. Wherefore when Acorns begins to drop through their ripeneſs, I think the ſecureſt way of all others, would be to raiſe a Ladder againſt the Tree, and gather only the largeſt of them as carefully we would the beſt of Apples or Pears for keeping the whole Winter. This done, let them lie thin on Boards in a warm Room, whether it be a Chamber or a Granary, ſo that the Froſts may not have power to hurt them. Had I room I could here give an account (what I have often been Eye-witneſs to) of a fatal Piece of wrong Management, both in the Preſervation of the Acorns, and in the Sowing of them. I ſay fatal, becauſe a ten Acre Field that was thus ſown with damaged Acorns complains to this Day, though it is now near twenty Years ago ſince it was ſown with this Seed ; by the Appearance of a Parcel of very ſcrubby ſtunted young Oaks. To prevent then the like Misfortune ;



Misfortune ; when the Land is, by several Plowings, or Diggings, brought into a fine loose Tilth, that has been well dunged or manured, so that it is in the best of Heart, (for such it ought to be) then the Acorns may be sown Broad-cast out of a Man's Hand in the random Way, and plowed in as shallow as well can be done, that their tender Spires may meet with not much Difficulty to ascend the sooner into the Air and grow the faster : Or the Acorns may be set by a Dibber, as broad *Windsor* Beans commonly are ; or sowed out of a Man's Hand by his following the Plow, that that covers them with the Earth of the next Furrow. Thus the Acorns will lie in a strait Line, as if they were drilled in at about a Foot Distance from the Drills ; but I would advise to sow Acorns in this Manner in only every third Furrow ; not but that I would have all the Ground entirely plowed, though two of the Furrows has nothing sown in them. The Reason is, that by this Management there will be room left for the two-wheel Hoe to be drawn through the interval Ground between the sowed Furrows, two or three times in a Summer ; by which this vacant Ground will be kept in a continual fine Tilth, that will give the Roots of the young Oaks an easy free Access into it, for striking and shooting their tender Capillary Fibres to a very great Advantage. This is an intire new Method, that I here offer to the World of Hoeing the interval Earth between the Rows of young Oaks ; and I do assure my Reader, it is the cheapest and very best Ways of all others. No Plough can be drawn between the Rows of Oaks to loosen the Ground, and kill the Weeds, and nourish their Roots, like this two-wheel Hoe ; for that this Instrument exceeds not only any Horse Hoe-plough, but all other Inventions whatsoever of the hoeing Kind, as will be easily perceived by the Cut I intend to give of it in my *Supplement to the Modern Husbandman*, which, when seen and understood, I don't doubt but Gentlemen will

dispatch



dispatch their Orders to me for furnishing many of them. As to the Conservation of Plantations of young Oaks, there has been much wrote of it already, and therefore I shall wave enlarging on this Article here, since the great Importance of their Safety one would think, is enough to induce Persons to take Care of them, till their Growth puts them out of the Power of Cattle to hurt them. And this I am sure would be very expeditiously brought to pass, if efficacious Manure was sown along the interval vacant Ground between the Rows of young Oaks, and worked in by the superlative excellent Machine, the new two-wheel Hoe. With this Tree many Groves may be made to great Pleasure and Profit, by plowing any Parcel of Ground into a fine Tilth, by dressing it into good Heart, and by planting Oaken Setts, or young Trees, at twelve or fourteen Foot Distance in Rows as many Acres, and give their Owners the great Benefit of enjoying beautiful, cooling, shady Walks in the violent Heats of Summer.

### Of the E L M.

**I**T is said, there are several Sorts of this Tree; but two Sorts are most cultivated here, the Mountain Elm, being of a smaller jagged Leaf, and that called the *French*, whose Leaves are thicker, more florid and smooth, delighting in a lower and moister Ground; this last Sort is best known here; and some of them have risen to a great Height, as well as large Compass. The Ground that this Tree likes best is a light Brick or loomy Earth; it is easily raised from the Roots of the Mother Plant; and the more you take from the Roots that shoot up, they seem the more to encrease; though many think this Tree bears no Seed, yet it is affirm'd by the curious and nice Observers of Nature, that it does: For about the Beginning of *March*, you will find the broad Leaf beginning to fall, which has  
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the Seed in them ; and if these be gathered in a dry Day, in what Quantity you please to sow, then lay them thin in some Place to dry for four or five Days ; and having prepared a Bed according to the Quantity of Seed you intend to sow, let your Bed be made of fresh Brick Earth ; if possible sow the Seed and Vessel all over ; after sift some of the same Mould all over the Bed, for they will not rake, let them be covered about half an Inch thick, then scatter the Manure thinly over the Bed ; if the Summer proves dry, water them sometimes, and keep them clean of Weeds, and about the Middle of *August* they will come up ; and when up, sift a little more Mould all over the Bed, but not so much as quite to cover them ; this done, the next Summer prune them of their Side-boughs, though young, and when they have stood two Years, you may remove them, still pruning them yearly, and preventing Cattle from cropping of them, you'll then produce many tall fine Trees ; this Way is allowed to be the best for raising the loftiest Trees, though the other Way is the quickest and most commonly done. The scattering some of the Manure over the Bed very thinly, when the Seed is sown, will make them flourish greatly ; as also when you remove them, mix a little of the Manure with the Ground you transplant them to, and let none lie in Lumps, which will greatly add to their Growth. You may plant this Tree in the Hedge-rows, it will run in the Bank, and add to the thickening your Hedge with Wood, and agrees well with any other Wood that grows near it ; it is counted erroneous to think it will grow from the Chippings : In Lopping these Trees, cut always close to the Stock, and cut sloping upward, the better to shoot off the Wet : It will grow off Layers, by laying them along the Hedge-rows, and covering them a little with the Mould ; they will shoot and fill a Hedge soon, if cut of each Side before it is laid in the Ground, and about an Ell long ; the Season for

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this



this Work is about the End of *January*. After they are growu up, then you may saw or cut them asunder, and plant them twenty or thirty Foot asunder in your Hedge Rows as you please. There are many other Ways of increasing this Plant, as well from the Branches as Roots, by opening a Trench in the Hedge Rows, and the Roots will shoot out, &c. This Tree is the easiest of any removed when large; but then he must be lopped of his Branches, leaving only the Top entire, and taken up with as much Earth as possible.

*Supplement on the E L M.*

**T**HIS Tree seems more and more to gain Approbation for being planted to make Avenues and Vistoes to Houses, Gardens, and Seats, because this will endure cutting into various Shapes for giving a beautifull sight to Beholders, for breaking off cold Winds, and the scorching Heat of the Sun, and for it agreeing well with wettish Grounds, and for the Profit its Timber returns: this Tree, as Mr. *Trowell* observes is propagated several Ways, but I think the best Way of all others, is by planting its setts or young shoots, drawn from about the Roots of an old one in *October*, and directly set into the Earth, where they are to grow, when it is in Plenty of Moisture, for this will greatly contribute to their striking Root immediately into it, and getting into a forward Growth before the Violence of Frosts comes on, that stops all Vegetation: for these Reasons all Setts or Suckers of Elms so drawn, or if they are dug up with a Mattock, or better by a Spade, they will stand a much surer Chance of growing expeditiously. Wherefore neither this nor any other sett or sucker, should have its Roots dry before it is transplanted, least when a thriving Tree is expected, there is only a weak half grown one. Happy then it is for many, that they have this Opportunity to improve their



their wet clayey Soils, by planting them with this Tree, for neither Oak, Beech, nor Ash, will grow here so well as the Elm, nor will they grow in so little a Compass of Ground. But when it is allowed a full room for its Roots to grow clear of all Interruption of others, it will grow into a Body of the greatest Bulk and Height in about seventy Years time, and then sell for one Shilling a Foot: here then four Foot square of Ground may be seen capable of producing a Tree worth Twenty or more Pounds, without causing its contiguous Earth so much as hardly to suffer any Damage, which is what cannot be said of any other Timber sort. How much then appears here the Goodness of the Creator in the Formation of this Tree, that gives Man both Pleasure and Profit, almost free of Harm, for no Timber-tree does less Prejudice to the Earth than this; but how much more does his Omnipotence, Power, and Beneficence appear, in giving each Timber and Fruit-tree its peculiar Nature, by which Man is capacitated to plant that Sort as best suits his Interest. It is these mute insensible Creatures that praises their Creator without Tongues, and proclaims his omnipotent Power, Wisdom, and Goodness, in such a lofty visible Manner, that that Man who beholds them without Admiration, must act the Part of a stupid unthinking Creature.

### *Of the A S H.*

**T**HE Keys, or Seeds, that you sow to raise this Tree, must be thorough ripe, which will be about *October* and *November*: When they are gathered, lay them then to dry; let them be gathered from the tallest and straightest Trees, by Reason the Seed will be larger and better: Let the time of sowing be from *October* till *January*, for they lie a Year before they spring, covering them about an Inch, or Inch and half, with fine Mould, and scatter some of the Manure

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thinly



thinly over the Bed : When they are up, keep them clean of Weeds at first, for they shoot but little the first Year; but the second they will shoot strongly; the Winter after they may be transplaned; prune the little side Shoots, and cut the tap-root, keep them with digging and pruning at the first, and they will soon come to be fine growing tall Trees : When you remove the Ash, do not top him, except he is top-heavy; for the Ash, like the Walnut, is not to be headed, they having a great Pith; the side Boughs may be cut, but then close to the Body, and the Boughs not large; though it is not like the Elm, to run much into side Branches; by doing of which, your Ashes will grow to large and tall Trees soon. It is not fit to be planted near a fine Garden, for the Leaves turn to Soil, and spoils the Walks, and the Roots running so shallow, will spread into the Beds and Borders: they are as bad for the Plough Ground, for the Roots will draw the Ground, so as to spoil the Corn : But though the Ash does prejudice Corn by its Root, yet the Wood is the usefulest and most universal of all Wood, except the Oak, for the Plough, and many other Uses of the Ploughman : It is a quick growing Wood, and does grow in most sorts of Soil, provided not too wet; it thrives best on such Grounds as have the Surface of a loose Nature, so it be not too shallow, and is excellent Timber for several Uses.

Ashes may be propagated from a Bough split off, with a little of the old Wood, and from the old Root, which will shoot forth prodigiously; from whence comes that called the Ground Ash, so much desired for Arbours, Espaliers, and other Pole Works. The Uses of Ash are many; as for the Carpenter, Wheel-wright, Cart-wright, Ploughs, Axle-tree, Wheel-rings, Harrows, Oars, and the best Blocks for Pullies; also for the Cooper, Turner, and Thatcher; Pallisadoes, Hedges, Hop-Yards, Poles, Spars, Handlestocks for Tools, Spade-trees, &c. Ladders and other tackling.

*Supple-*



*Supplement on the ASH.*

**T**HIS most useful Tree deserves all the Directions that can be well given it for encouraging its Propagation, and therefore I shall here add my thoughts on it, to what I have formerly, and what Mr. *Trowell* has wrote on it, who has said I think, almost enough of its Keys or Seeds, which are a sort so apt to grow, that I have known a ten Acre Piece of Ground, which was plowed, dressed, and sown only with Acrons, receive so much of this Seed by Accident, of its being blown by the Wind on the same Ground, from old Ash-trees that grew contiguous to it, as to stock Part of the same Land with great Numbers of young Ashes, that came up in the spontaneous Way, and run into higher Trees than any of the other Timber Sorts, for here grew Oaks, Ashes, and Beeches: the Beech Mast, or Seed, was brought on the Spot, and left by Rooks, Squirrels, and Mice; and indeed those Trees that thus grow from Seed left on the Surface of the Ground, most commonly make the foundest and largest of Trees, as their Seed is drawn in, and receive their Nourishment from the Surface and richest Part of the Earth: The Keys or Seed of this Tree may be sown by the broad-cast spread over the Ground, and plowed in; or it may be sown out of a Man's Hand in a Furrow after the Plough, and covered by the turn of the next Furrow: In either of these Forms of sowing, the Ground should lie very shallow on the Seed, least it be what we call buried by the Cover of too much heavy Earth: this is to be done for a Nursery, or a standing Wood; but in Case, Ashes are to be planted in Hedges, or other particular Places, then Ashen setts are by far most commodious and most advantagiously planted. And here I would advise

vise that no Ash be planted too near plowed Ground, because its Roots run so horizontally near the Surface, that they impoverish all Ground, and spoil all Grain sown in their reach ; and indeed so does those of the Oak and Beech, but none so much as the Ash ; and therefore when a Tenant is obliged to suffer such Damage (as many are who dare not cut away their Roots) it is unfair in the Landlord to allow it. I knew a Gentleman, a Lord of a Manor, that was so tenaciously bound of his Timber-trees, that he who cut away any of the Roots and Arms, though it was just and lawful so to do, as the one run into another Person's Ground, and the other hung over and spoiled his Corn and Hedge, yet he would be greatly affronted at any ones attempting to do himself this Justice ; nor would he suffer them to be cut and lopt by his own Workmen. I must confess he was a very worthy Gentleman in many other Respects, but in this, in my humble Opinion, he was very wrong ; for if a Person ought to be as good as his Word, though it be to his own Prejudice, why ought he not forbear doing his Neighbour Damage though he somewhat incommodes himself by it.

### Of the BEACH.

**A**BOUT *September* the Mast of the Beech fall much, then gather what Quantity you like : As soon as your Seeds are dry, make a Couch of Sand, by putting a Layer of Sand first, then cover that with Mast, than Sand over that, and so on, *Stratum super Stratum*, till you have covered all your Mast : Having thus prepared your Bed with Sand in a dry House ; any time in Winter, let your Sand be pretty moist, and so keep it till *January* ; then prepare your  
Ground



Ground by often digging, and a light gravelly Ground; or if you incline to sow it in your Woods, that is the best time: It will thrive on most Grounds, and grow to large Trees, even on the Mountains; for they will seemingly strike their Roots into Places that are almost impenetrable.

The Beech serves for various Uses of the Family; the Turner makes Dishes, Trays, Rims for Buckets; likewise for the Wheeler, Joyner, Upholsterer, as Chairs, Stools, Bedsteads, &c. for the Bellows-Maker and Husbandman, Shovels and Spade Grasses; and Floats for Fishing Nets of its Bark; also Billets, Bavins, &c. and it is said the burnt Ashes of the Beech, with proper Mixture, is excellent to make Glass with.

### *Supplement on the BEACH.*

**M**R. Trowell says so little of this Tree, that I think myself obliged to say more. He indeed directs the preserving of the Mast, or Seed, very well; but as to his saying this Tree will thrive in most Grounds, I can hardly agree with him, because a Beech will not thrive in any marshy, nor even in any vale stiff Earth, as its Nature is repugnant to theirs. But in chalky, gravelly, or in dry loamy Earths, no Tree agrees better with them. Wherefore it does not a little surprize me, that Gentlemen who are Owners of such Soils, do not fall into a Notion of the great Benefits attending the planting of these Trees more than they do. On this Account thousands of Acres of such Lands being planted with Hasel, Thorn, Sallow, and such, has often given me a Concern, as knowing their Owners Interest to be much lessened by omitting to plant Hedges and Standard Trees of this valuable Timber; valuable, I say, as this Tree commonly yeilds great



Quantity of Mast or Seed once in two or three Years, that feeds Swine, Deer, and Poultry, and in time grows into the biggest Bulk, for I never see any Oaks bigger than those Beech-trees that now stand in *Shridge* Park near *Gaddesden*. But I suppose Mr. *Trowell* was never Owner of these sort of Trees and Hedges, else I am persuaded he would have wrote more on them : For my Part I have Reason to be well acquainted with the Nature of this Tree, as I have planted Hedges with its Setts, and am at this time Owner of many Standards of them ; and do, with Assurance, say, that no Tree agrees so well with chalky Soil, as this does ; nor is there any Way to come by a Beechen Hedge so quick, than by planting the Ground with Beechen Setts, that has their Heads on, and their side shoots shortned ; for if the tops of these Setts were cut off, few or none would grow of them. And indeed it is very surprising to see a Hedge of Beech grow into a great Height or Bulk on a chalky Eminence, and prosper in a very strong Fence ; and where after twelve, fifteen, or twenty Years Growth, return the Owner a considerable Profit in the Sale of Faggots or otherwise ; which Setts are to be planted in *October*, or in any Month between that and *April*, if the Weather is open. I once sent a Gentleman some of these into *Devonshire* by Sea, and am ready to supply any Person with them on a proper Order, that shall be taken from a proper Soil, which with a careful Management of them in packing up their Parcels, there needs no fear of their Re-growth, especially if the Ground about their Roots is carefully kept weeded, and a good Manure is judiciously applied over them ; for by such good Husbandry, this or any other Tree may be made to grow into a considerable Bigness in a little time ; or if any Gentleman pleases, I will furnish him with any Quantity of Beech-feed or Mast, as I have it carefully gathered for this Purpose.



## Of the CHESNUT.

THERE are several Sorts of this Nut, and though the largest and best comes from abroad, yet there are many raised in this Country, and the best sort grow to large Trees, and bear a good Nut ; and was formerly planted in several Places, as did appear by the many Buildings in and about the City of *London*, before the great and dreadful Fire consumed the same : For in several Places, in the Out-parts, are some Buildings now standing, which has been built above an hundred Years, and the principal Part of the Wood-work is of Chesnut : Therefore as this Timber is so durable, and of speedy Growth, it is great Pity it is not more minded by Gentlemen in planting of their Woods and Hedge Rows : It will grow as Underwood, and being lopped, will increase from their Roots very much, and will produce great Number of the best Stakes and Poles for Pallisadoes, Pediments, and Props for Vines and Hops : the Timber is good for Columns, Tables, Chests, Chairs, Stools, Bedsteads, Tubs and Wine Casks : They are produced by sowing : Let the Nut be first spread to sweat, as you do the Beech Mast, in a Layer of dry Sand, *Stratum super Stratum* ; then put them in a Lixivium of the Manure, all that swims are not valuable ; then take them out, and dry them for about a Month ; then after that sand them again ; then dry them till about the Beginning of the Spring ; then set them in Rows as you do Beans ; put them into the Holes with the Point upwards, and do not remove them for two Years ; yet they may be planted, where you design they should stand, and not removed at all ; if you do remove them, let it be about *November*, and that in a light Ground, or a moist Gravel ; though they will grow in almost any Soil you have

have even in a Clay ; in any Place, either on Hills or Declivities of Hills ; if Northward they will thrive, keeping them clear of Weeds at the first planting ; and prune them as you do the Oak : the Fruit of this Tree has been, and is a very great Dainty in many curious Dishes, both abroad as well as here ; they are made into Bread in some Places : In some Countries abroad they put the Leaves into the Mattresses they lie on.

*Supplement to the Sweet and Horse CHESNUT.*

**M**R. *Trowell* has above given a good Account of the Propagation of this noble sweet Chesnut-tree, and is much in the right of it in saying, it is a great Pity it is not more minded by Gentlemen, to plant their Wood and Hedge Rows with it ; and I say the same, and particularly for its not being planted in many Parks that would well agree with the Growth of this Tree, because this Tree yields the Owner a Timber near, if not quite as good as Oak, and as bulky, besides a sweet delicate nourishing large Nut, excellent for Man and Beast. When in a Park, Deer will greedily feed and fat on them, as well as Swine, and both acquire the best of Flesh by it.

As to the Horse-Chesnut, Mr. *Trowell* has omitted writing on it, for what Reason is best known to him. But with Submission, I humbly conceive it to be a very profitable Tree. It is true, that its Wood is commonly thought good for little else but the Fire ; But I shall make it appear, it is otherways servicable. There are many Horse-Chesnuds planted in and about *Ashridge* Park ; one Parcel incloses the Carpenter's Yard, and yield the Workmen and others a fine Shade in Summer, and a refreshing fragrant Smell when its Bloms hang in large whitish Clusters. And in Winter they



they prove a very beneficial Shelter them in breaking off the Violence of Winds. Another Parcel is employed by being planted instead of dead Posts to receive the End of Rails into the Mortaises, cut into their Bodies, by which two of them supports one Pane of of Paleing about ten Foot long, and in this Manner some Hundreds of Poles of Ground are planted with this Tree, for their supplying the Service of Oaken Posts. Now as this is live Wood, and every Year yields abundance of bitter Nuts, bigger than the sweet Chestnut, they become in Part a wholesome, though a little bitter Subsistence, both for Deer and Swine, that feed on them with a good Appetite. The Propagation of this Tree is carried on, first, by planting the Nuts in a Nursery, and transplanting the young Trees till they are fit to be removed and replanted in the Place where they are to stand, for which Purpose they should be eight or ten Foot high, with their Leading or Master Shoot on ; for this Wood is a most spongy light Sort, and therefore its Arms are frequently broke off by the Violence of Winds.

### *Of the* WALNUT.

**T**HERE are several Sorts of this Nut ; therefore they who design to plant must choose the Sort that is most esteemed, (and to know what Kind will alter for the better) some will be better, others worse, and some near the Sort you design to raise from : Gather your Nuts from a young thriving Tree, that is in the Prime of its bearing ; When they are gathered, lay them in some Room to dry, turning of them sometimes with a Broom : about the Beginning of *October* put them into Sand, a little moistened with the Lixivium of the Manure, till about *Christmas*, for then they'll begin to spear ; sow them not in their Husks, neither steep them, (as some advise ; set or sow them in *January*,

*nuary*, or the Beginning of *February* ; 'tis good to strew some Furzes broken, or chopt small, to preserve it from Mice and Rats, when the Shell begins to be tender. If you plant the Nuts, where you design them to abide, is well, because this Tree is most impatient of any to be removed : You must keep them digging about, or hoeing and pruning, till they get about six Foot high ; if you bud them, it may make them bear the sooner : I have raised them from the Nut, and in seven Years they have bore, and grown larger in that Plant. from the Nut, than some replanted that were twenty Years from their first Growth : they delight in a sandy rich Ground, especially inclinable to a feeding, chalky, or Marle, and where it may be protected from the North Wind, (though it affects Cold rather than extreme Heat) It may be set in Woods, for it will run up (if the under Boughs be cut off) to a great Height, and yield very good Timber for many Uses : It yields a very good Oil for Painters, and others Uses.

### *Supplement on the WALNUT.*

THE Propagation of this Tree is well advised by Mr. *Trowell* ; for in the last Century there were more and larger Plantations of these Trees, than there is at present. *Croydon* in *Surrey* was formerly known to be a Place that exceeded all others for the Growth of large Walnut-trees, on their chalky dry Soils, now few are to be seen there. I know no Reason for this, unless it be that our Ancestors were not so much necessitated to cut down Timbers for Sale, as we are now ; for as this is a Tree of the most profitable Kind, I think it is enough to invite Gentlemen, that have a Conveniency, to propagate it in a numerous Manner, for that its Wood yields the greatest Price, when arrived to a due Age and Bulk, besides the almost

an-



annual Benefit of its Fruit, that in Nuts frequently returns the Owner no little Profit. This Tree, it is true by the close Texture of its Wood, requires many Years Growth to arrive at its full Bigness, as it is planted and grows in the common Method of planting Trees, which is just to dig a Hole, put in the Roots, and only cover all with Mould, and thus leave it, except perhaps supported at first from falling, with Stalks, Rails, or Bushes, so that here is hardly any Husbandry bestowed upon this Tree, though it is one of the Number that wants it most. To remedy this, if the Ground in which these Roots run was to be kept in a continual tilth Condition, and proper fertile Manure was to be spread over it once in two or three Years, in the Month of *October* or *November*, for the Winter Rains to wash it in; it would soon show the good Effects of such an Assistance, in a most expeditious thriving Order, even I don't doubt but to grow as fast again as Trees deprived of these Benefits. Mr. *Trowell* says right that this Tree is the most impatient of any to be removed; for I knew a Person that had no more Wit, than to buy a Parcel of large stunted Walnut-trees, that I suppose were twenty Years old when bought, and having transplanted them they were perceived to be hardly bigger in twenty Years time more; wherefore this Tree in particular thrives best when it is propagated from its Nut, put into the Place where the Tree is always to remain. This Nut, when young and preserved in Syrup, with a Dram of clean Brandy, gives many Foreigners a Breakfast, as the same Nut does pickled, give a Sauce to the *English*.

### *Of the* F I R R, P I N E, and P I N A S T E R.

**T**H E S E are noble Plants and grow very lofty; there are two Sorts of the Firr, one called the  
Male



Male, the other the Female, the Male is the bigger Tree, most beautiful and tapering, and of a harder Wood; the Female is much the softer and whiter: In *New-England* they have many of them, which are preferable to any other: In the *Scottish* Highlands are some of these Trees of a great Altitude, though not altogether so tall, thick, and fine, as those in *New-England*, and grow in Places inaccessible. The Reason they do not thrive in common with us here is, 'tis thought, because we plant them from *November* to *March*; but the best time to remove these is from *March* till the middle of *August*, which is also the best time for most of these Sort of Plants: the Ground they love is a fresh gravelly Soil, mixed with Loom, though they'll grow in a stiff hungry Clay; they do not love a rich Soil; they must not be set too deep; they will grow on the top of Rocks, and to large Trees, in the cold Countries of *Norway*, *Denmark*, *Russia*, &c. The Cones, or Clogs of these Trees, when taken from the Tree, are either laid before the Fire, or in warm Water, to make them open, so as to cast forth their Seed; they are to be sown in Beds or Cases; sow them in a shallow Rill, not above half an Inch deep, and cover them with fine light Mould; cover the Bed with some Furze, cut small, to secure the Seed at its first coming up, else the Birds will pull it out of the Ground and devour it; being risen a Finger Height, sift some light Earth, mixed with a little of the Manure, which will make the Root shoot fresh, and support the young Shoot, which may be top-heavy, and swagg: When they are of two or three Years Growth, you may remove them where you please; but remember to take as much of the Earth as you can along with the Plant; therefore they should be sown at a proper Distance, that you may the better come at them with a Spade, or other Tool made hollow, to take up the Plant, as you do with a hollow Trowel, in the removing of Melons, Cucum-



Cucumbers, &c. The best time to transplant is in *April*, &c. as was before mentioned.

The Pine have many Sorts; they should be gathered in *June*, though they will hang two Years on the Tree; there will be some ripe and some green on the same Tree; you may preserve them in Sand, till you set or sow them in Ground like the Firr: this Seed may be set a little deeper than the Firr; and the Seed of this, as well as the Seed of all of this Kind, may be mixed at the time of sowing with some of the Manure, and 'twill cause it to come up stronger and sooner; they may appear in *May*; when you prune them, cut them close to the Stock, as other Trees are, if you like to have them tall and spiry; but then rub where you cut with the Dust of Cow-dung, to prevent the bleeding or coming forth of the Gum, which must not be neglected: these Trees grow well in Mountains; and it is a great Pity that this Tree were not tried in many Places on the Hills in *Wales*, that at this Day bear nothing, but lie uncultivated.

The Pinafter is best for Walks, because it grows tall, and maintains its Branches on its Sides: the Firr, upon his Removal for the first five or six Years, will seem to be at a Stand as to its Growth; but when it hath fixed its Roots, and finds the Ground to its Liking, will shoot marvellously, and to great Satisfaction.

### Of the LINE or LIME-TREE.

**T**HERE are two Sorts of this Tree, one having a broader Leaf than the other (by which chiefly they are distinguished) of which we have had the broad Leaf from *Holland*; though they may be and are raised here from the Seed, as in many Gentlemen's and Gardeners Nurseries, and in Woods: the narrow-leaved is more difficult to be removed than the broad; they are

are by some called Male and Female, yet both bear Seed by laying of them in the Earth: they will grow as the Elm, but from the Seed they grow to make finer and staaiter Trees, and sooner come to Perfection; the Seed is ripe in *October*; then lay it in some dry Place for a Week or more; then put it in a Couch of Sand till *February*; then sow it in some Loamy Ground; after sown, strew some of the Manure very thin over the Bed; if a dry time follows, moisten them a-little; keep them clean from Weeds before you remove them; let them remain two Summers, and then if you remove them to any Place, they will thrive extremely, and serve for many Uses.

### Of the SYCOMORE.

**T**HIS Tree is not so much planted near Gardens as usual, by Reason its Leaves falling upon the Walks create a Soil, which breeding Weed and Grass, &c. spoil them; though it produces a fine Shade near Dwelling Houses; but are by many refused, having a Quality to draw Flies and Moths, and does receive the Honey-Dew, as well as the Oak, Maple, &c. they are easily raised from Seed; for when the Keys are ripe, they scatter and grow wherever they fall; though they are by some, that intend to sow them in the Wood, managed as the Ash; they are speedy of Growth, and serve for Walks, &c.

### Of the BIRCH.

**T**HIS Tree is increased from the Roots or Suckers and will thrive in most Grounds whether high or low: and though it may by some be called the worst of



of Wood, yet for its many and various Uses it ought to be cultivated in the Woods, &c. When this Plant is grown to a large Size, it is often what they call tapped for its sovereign Juice, which flows from it upon the first Motion of the Sap; and is managed in the following Manner, as is set forth by that excellent Author *John Evelyn, Esq;*

“ About the Beginning of *March*, with a Chizzel  
“ and Mallet cut a Slit, almost as deep as the Pith,  
“ under some Bough or Branch of a Well spreading  
“ Birch; cut it oblique, and not longways, inserting  
“ a small Stone or a Chip to keep the Lips of the  
“ Wound a little open; fasten thereto a Bottle, or  
“ some other convenient Vessel appendant; out of  
“ this Aperture will exstil a limped clear Water, re-  
“ taining an obscure Smack both of the Taste and O-  
“ dour of the Tree; thus you may obtain this Water:  
“ I will present you a Receipt how to make it.

“ To every Gallon of Birch-Water put a Quart of  
“ Honey, well stilled together; then boil it almost an  
“ Hour with a few Cloves, and a little Lemon Peel,  
“ keeping it well scumm'd; when it is sufficiently boil-  
“ ed, and become cold, add to it three or four Spoon-  
“ fuls of good Ale Yeast to make it work, which it  
“ will do like new Ale; and when the Yeast begins to  
“ settle, bottle it up as you do any other winery Li-  
“ quors, it will in a competent Time become a most  
“ brisk and spirituous Drink, which is a very power-  
“ ful Opener. This Wine may (if you please) be  
“ made as successfully with Sugar instead of Honey;  
“ one Pound to each Gallon of the Water. Or you  
“ may dulcify it with Raisons, to compose a Raisin  
“ Wine of it.”

*Of the HASEL.*

**O**F this Kind there are many Sorts, as the Filberds both red and white, and the *Spanish* Nut; as also what is called with us the large Cob Nut; they are easily raised here, which you may sow like Mast in a Furrow, about six Inches deep. Scatter some of the Manure on the Furrow, after it is covered, which will make them strike a strong Root, and increase very much: Let this Work be done the latter End of *February*, for then the Frosts are past, which affect this Nut, as well as the Mice, who are also great Devourers of the Kernel, if they can come at it: When they grow up they are very tonsile, and may be cut into Hedges, or made a Shade for Walks, &c. The Wood serves for many Uses; and the Fruit when ripe, is searched after both by Men and Maids in every Country.

*Of the MAPLE.*

**T**HERE is Plenty of this Tree in most Parts of the Kingdom, both in Hedges and Woods: It is increased both by Seeds and Layers, and from the Roots of Trees cut down; the Seeds lie in the Ground a Year, and may be ordered as before in the Ash; 'tis not good to let it grow to too great a Tree in the Hedge, for 'tis said it will kill all the Wood that grows under it; it is a good Wood to plant, as for Underwood in Coppices, because it shoots forth good Shoots, and thickens a Wood much; it thrives best on a dry Ground: the Wood is used for many Utensils, &c.



## Of the MULBERRY.

**T**HOUGH this Tree is not counted a Forest Tree with us, yet Abroad 'tis planted in Woods: And in King *James* the First's Reign, he published his Letters, &c. to recommend the Planting it in every Part of the Kingdom for the Benefit of his Subjects in general; on Account of the Silk-Worms. There are two Sorts of them, the black and white: this Tree is easily raised from the Seed; for if any of the Mulberry is given to Hogs or Fowls, nay even if the Dogs eat them, from the Dung of each will the Mulberry be produced: so also many of the Seeds of Ever-greens may be raised, as Holly, &c. that lie long in the Ground, by feeding or letting the Fowls, &c. eat the Seeds, which gives them a quicker Change to Vegetation, than lying in the Ground only; except the Ground happens to be prepared, or proceed from some rich Soil that causes Vegetation, through the Warmth or Richness of it by some Cause as is aforesaid. When they first appear above Ground, moisten them a little, for the Sun's Heat will over-power them, and dry them up. Keep them clear of Weeds, till they have got a-head to preserve themselves: When they are about five Years old transplant them; keep them pruned at the first of side Boughs, till you transplant; they may be raised of Layers from the Succours in the Spring, and also grafted in the Spring: As the Fruit and Leaves are beneficial for many Uses, as well for Foods, Physick, &c. so likewise is the Wood useful, and will lye in the Water as well and as long as the Oak: It is to be wished that this Tree was more propagated, if it were only for the Sake of the Silk-Worms which, as some Authors relate, are done in *France* and *Italy*, the Climate in those Parts being as uncertain in the Seasons, for the Produce of these Insects.

as Ours : Where the Seeds are sown, scatter some of the Manure thinly over them, which will make them flourish much.

There are many other Trees that may be mentioned, as to the raising for Underwood, &c. but being unwilling to swell this Tract to too large a Price, I have only treated of the chiefest ; there being very few but know how to plant or raise most or all from the Seed, in the like Cases, as has been before recited : And as there are some Plants that delight in watery Places, and are by Nature Aquaticks ; such as the Alder, the three sorts of Withes, viz. Sally, Ozier, and Willow ; also the Poplar loves a moist Ground, but not so much as the Alder or Willow, &c. These Sorts most Countrymen know how to plant, as well as other Plants not here mentioned in particular, viz. the Horn-beam, Service-tree, Yew-tree, Crab-tree, &c. which are planted as Under-wood in many Places ; and others that are planted in the Hedge Rows, for the Boundaries of Ground as well as Fences for Cattle : And as the Observation of the Planter of any or these and the other Plants, should be taken by his seeing what Ground he takes them from, and by observing the Ground each Plant thrives best in, so to plant each Sort, as near as can be, in the like Nature, whether in dry Places, clayey, or watery ; by following this Rule, no Person can well miss upon his transplanting, on having his Labour successful.

*Supplement on the Fir, the Lime, the Sycamore, the Birch, the Hazel, the Maple, and the Mulberry.*

**F**IRST on the Fir : This Tee, as Mr. Trowell well observes, is one of the best (if I may so call it) of Timber-trees, for growing on Hills in almost any sort of Soil. And for this Reason, it suits the Convenience of many to plant it, not only for the sake of



of the Beauty it gives to all its Beholders, both in Summer and Winter ; as it is an Ever-green, but also for its fine wholesome pleasant shade and shelter. For in Summer these Turpentine-trees when planted close enough to compose Walks, are so delightful as to invite Persons from distant Places to come and enjoy them. And in Winter they likewise serve, by their close standing brouzy Heads, to break off the Fury of Snows, Rains, and Winds, from Cattle and Houses, and in some parts their Loppings or Cuttings are given to Beasts, (Sheep especially) to brouze on, and become a most healthful Feed to them. But above all, this Tree gives the most Encouragement to some to plant it in inland Countries distant from the Sea, that they may be Owners of the most profitable Wood of all others for building Houses in the cheapest Manner. Now as Mr. Trowell has given a good Account of a Tree that best agrees with a dry hilly Situation, I shall also give another that is as profitable to plant in wet stiff Valley low Land.

*The Benefits that may arise from planting Setts of the White-wood-tree.*

This Tree is so near allied to the Fir, in Respect of the soft white Nature of its Wood, of its quick Growth, and of its great service in Building, that I think it rightly deserves to be the next Tree I give an Account of, which must be very short, as I have not Room here to enlarge. The Setts are far better than its Truncheons to plant in Hedges, or to grow in single Trees, clear of all other Wood. In either Form it agrees so well with vale stiff spewey Earths, that they will get into high large bodied Trees, as soon again as the Elm. This Tree by some is called the *Dutch Arbele* ; but in the Vale of *Aylesbury* it goes under the Name of the White-wood-tree ; a Name that it justly deserves for the exceeding white Colour of its Boards,

when made use of for Flooring, and making Dressers and Shelves ; and in these shapes it gives many of the true Country House-wives no little Delight to keep them in their pristine delicate Colour ; and thus serve to save the great Expence of buying and fetching Fir-wood from distant Parts for putting it to these Uses. Many of these White-wood Setts I have sent abroad, and am ready to do the same on proper Orders, as I live on the Edge of this fertile Vale of *Aylesbury*, and are very valuable for improving clayey and wet Grounds, when planted in Rows for Vistoes to Seats.

*Secondly*, As to the Lime-tree, it is seldom ever planted in Farms, unless it be by the Landlord for making agreeable pleasant Walks to the House, which it will well do, afford a pleasant Shade and Shelter, and by its Blossoms, yield a very fragrant wholesome scent ; but as to its soft-wood, it is not of so much Value as the Fir.

*Thirdly*, As to the Sycamore-tree, by its broad Leaves it gives a beautiful agreeable shade and shelter in hot Seasons to Man and Beast, particularly when planted in Rows for Walks ; is a fast Grower into a large Body ; agrees best with any soil on dry situations, and its soft white-wood pleases both the Turner and Buyer of it in the Form of Trenchers and hollow ware, and is generally sold for 6 *d.* the solid Foot.

*Fourthly*, As to the Birch-tree, it is planted in many parts of *England*, both in swampy and dry Grounds ; and where it stands single, grows into a good Height and Bulk. Its profitable Uses in Brooms and in several Utensils, as well as Wine, are so well known, that they need not much Description.

*Fifthly*, As to the Hazel, I have many Hedges of them in most of my inclosed fifteen Fields, that were  
planted



planted in former times and not by me : some indeed are necessary, as this Wood serves for the best of Withs, Rods, and Stretchers for Thatching, and several other Uses; is a fast Grower, but proves so loose a Fence, that we every now and then receive a Damage by our Neighbours Cattle breaking through its Hedges into our Ground ; insomuch that was it not for our contiguous Ditches to them, we should be in much Danger of having our Crops of Corn spoiled by Horses, Cows and Sheep, that otherwise would easily make Breaches into them : was I to plant Hedges where some of the Hazel grows, I would have propagated the Filbert in some, the Sallow and white Thorn mixt with others ; the Horn Beech in others, and the Crab set in others, the white common Beech in others, &c. Accordingly I am ready to supply Gentlemen with all, or any of their setts, on a proper Order. And now as I am writing on the Hazel, I take this Opportunity to say, that a Plantation of Filberts, in many Places, may be made to pay their Owner as well or better than any other Tree, especially where they grow near enough to *London*, to be sent there at an easy Charge, for this Fruit never wants a Market, as it is esteemed by most a dainty sort, that helps to furnish a Table from *September* to *Christmas*, and longer. It also gives Encouragement to be planted as it is a Tree that grows in almost any soil, in both Vale and Chiltern Countries ; costs but little to transplant its Setts ; and if the Ground is kept in a fine Tilth, is manured as it should be, and its Suckers pulled away from their Roots in due time it will flourish and bear much Fruit.

*Sixthly*, As to the Maple, in most of our dry gravelly and chalky Loams in *Hertfordshire*, this Tree is growing and mostly in Hedges, where it grows fast enough to keep pace with the Hazel, Thorn, and all others except the Sallow ; however we look on it as



an indifferent sort, because its Wood is somewhat softish, and soon burnt out, and therefore not much in Esteem at present, though in antient times it was in the highest Reputation for yielding a knotty and delicate grained Wood, that sold for much when made into Tables and other Utensils, and at this Time the Turner will give Six-pence and Eight-pence a Foot for it, to make Trenchers and Hollow-ware, as Bowls and several other Sorts, for this is a whitish Wood, and next to the Sycamore-tree for making these of a very white Colour.

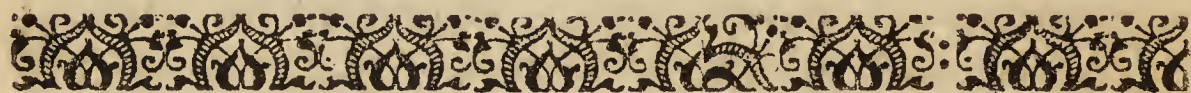
*Seventhly*, As to the Mulberry, it is a hardy Tree, because it will grow well on Gravels and on Clays, has a close Grain, and bears great Quantities of large Berries both of the white and red Sort, that are pleasant to eat, and makes a delicate cooling Wine: We have few of these Trees growing in *Hertfordshire*, which occasion some Persons to go Miles for getting its Leaves to feed their Silk-worms, which of late are so successfully managed by some, that they have saved Silk enough, and made themselves Gowns. There is nothing more easy in the Practice (says an ingenious Person) than the Breeding and Feeding of Silk-worms. A large airy Room must be divided into several long Rows of Shelves, one over the other, like those that are placed to hold Books in a Library. These Shelves must be made very smooth and well-plained, and pretty forward in *May* these little Eggs, which you may buy by the Ounce, and which may be had in what Quantity you please, from *France*, *Spain*, or *Italy*, must be laid on these Shelves, where only the natural Heat of the Season (though the Use of a Stove may sometimes do better) will sometimes disclose the small Insects in the Shape of a Caterpillar; but I must forbear proceeding, as having not Room here to carry on this Account farther, and add the following one of the white and red Elder-trees.



*Of the Virtues of the Red and White Elder-Trees.*

THIS Tree, though it has escaped the Observation of Mr. *Trowell*, it shan't mine: And I am sensible that the red Elder-tree has formerly been in such Disrepute, that few regarded neither it nor its Fruit, till of late Years its salubrious pleasant Qualities have been more discovered, which has obtained it such a Reputation at present, that its Liquor or Wine is preferred at some of the greatest Tables; and the more, as a white Elder-berry, much like a white Currant in Bigness and Colour, has come into Vogue, and not only for its Colour, but because it may be made into a Wine little inferior to the white *French Frontiniac*, as has been proved by several curious Makers of it. And I further say, that red ripe Elder-berries, boiled in a high-coloured strong Wort, or white Elder-berries, boiled in a strong pale Wort, may be made into a most excellent pleasant wholesome Liquor, with the Assistance of a few proper Ingredients. But many bestow more Cost in making its Wine, that admire it so much, that they do not grudge the Expence of adding an Infusion of Raisins to it; and when such Brewing is perform'd according to Art, the Wine thus made may be justly esteem'd a Liquor equal in Value to a Port Wine. Hence it is, that of late many Farmers in *Hertfordshire* have propagated the Elder-tree in their Hedges, as thinking themselves unprovided of the best *English* Drink, if they have not a Cask of Elder-wine in their Cellars to entertain a Friend in the cold Winter-season, and give them a Glass of this Cordial, burnt in the Manner Claret is. This excellent Tree, I think I may say, is the most easy raised of any of the Fruit Kind, for by only sticking its Cuttings into the Ground in the Month of *February*, they seldom fail of taking the Earth,

Earth, and growing a great Pace in a very little Room, if it is not of too dry a Nature. Thus I raise great Numbers of the white Sort of Elder-trees in my Nursery, chiefly to oblige those Friends with, that deal with me for other Things. Wherefore, whoever has a Mind to propagate this white Elder-tree in their Ground, when they write to me for Seeds, or Instruments of Husbandry, or other Things, let them mention their Desire in the Letter they send me, and I will take Care to convey some to them *gratis*. And if they will but dig the Earth about the young Tree, and scatter some good Manure on the Ground over their Roots, and water them now and then in very dry Seasons, I think they need not doubt of their being Owner of fine fruitful white Elder-trees, that may bear some Berries on them in the first, or at farthest in the second Year after their transplanting, if the Cuttings are about eight Inches long, and as thick as a Man's Thumb when first put into the Ground.



## CHAP. XXI.

### Of FRUIT TREES.

**T**HERE is great Variety of Fruit-trees of the several Species, and under many Denomination in each sort; and all, or most of them, have been from time to time raised from Seed, and after it hath grown to a bearing Tree, it shews its Produce; if good, some of the Branches are cut at the proper Season, to graft where the Fruit of the Tree is not so well liked: And the same also at the proper Season for the Inoculation



tion of one Fruit on the Body of another Tree. Now after this is done by the laborious Gardener in his Nursery, then are they transplanted from the Nursery to some proper Place, where they will grow and produce good Fruit. When they are removed from one Ground to another, Care must be taken not to break the Roots of such Trees but as little as possible; neither let the small Fibres, that the Tree hath shot the Year 'tis taken up, dry too much, for from thence is the main Hopes of the Tree's Life; they drawing the Moisture of the Earth, more than the dryer or larger Roots, though many Gardeners cut these off too often, which puts the Tree to a very great struggle to recover; especially if not watered or rained on by the Heavens; for till these Trees emit those small thready Fibres from the old Roots, it will not thrive, for by these Vessels the whole Body is preserved; do not set them too deep, in wet or heavy Lands, for the great Moisture chills the Roots that they cannot thrive: neither should they be planted too high in dry Ground, for then the Sun, Wind, and dry Weather have too great a Power on the Root, before it recovers strength enough to shoot into the Ground for its own Defence; let all broken Roots be cut off before they are planted, and also crop a little of the present Year's shoot or Fibres, but not too much, if you value the Tree. Let this be done from *September* till *March*; if so late as *March*, then more Care ought to be taken, if Drought comes, by watering, else for want of that Nourishment it will languish and die; put likewise some Fern, Weeds, or wet Straw about the Tree, which will keep it moist, and prevent the Sun or Wind from drying the Ground too much; and if the Tree seems to live, yet not to thrive, which is called Bark-bound, you may with a Knife draw the Point from the Fork of the Tree to the Budding or Grafting Part, by slitting the Bark of the Tree, which will soon shew you the Benefit it receives from that Operation: It may be done in three or four Places round the Body.

Now

Now after the Tree is set, and taken Root, and likes the Ground, 'tis then the Gardener's Part, as a Schoolmaster, to direct and form his Branches; for it is in Trees, like a Youth, if he meets with a good Master, he walks steady the Remainder of his Days; but if not, the contrary: so in Trees, be they against a Wall or Standards, any Person of Knowledge may see, as soon as he enters the Garden, if the Master Gardener has done his Work justly. For this is one of the chiefest Parts or Art of the Gardener, and there are but few that are Masters of it; for if a Gardener does not truly know it, he does many times in a Day, that Years can't recover; and sometimes never: so that many Gentlemen plant, and, for want of a skilful Manager at the first, their planting is in vain. Now a Wall-tree should be directed to spread against the Wall, or Pail, as a Fan, that its Branches, like the sticks of that, may spread from the bottom to the top with bearing Branches, which will recompence the Master's Charge, else Time, Money, and Labour are all lost. Now it is very easy to know the Fruit Buds from the Water-shoots, which may be shewed to the Unskilfullest in a very little time, by walking round the Garden, and observing the Director: These Water-shoots, or Branches, should be cut off the Tree, to let the bearing Branches have the more Sap to feed his Fruit, except when a Part is naked against a Wall, then leave one or more of these Branches to fill the void Place, which will make the Tree uniform the next Year.

This Part of Pruning is most properly obtained by Practice and Observation; for the Direction by writting will not be perfect; though that labroious Author *Monf. St. Quintin* hath done much towards it, as well as others. As for the Standard-trees, they are to be pruned likewise from the many useless shoots, which only fill the Head of the Tree, and robs the Fruit of the proper Nourishment it should have for the support:



port : these shoots come every Year ; therefore when your Tree has got a sufficient Head, they ought always to be pruned off ; will bear better Fruit, and ripen sooner ; while these shoots hinder the Sun's giving its genial Warmth to bring the Fruit to its Maturity.

Now if your Trees are, for want of a diligent Hand, grown over with Moss, you may, with a Horn or Wooden Knife (for Iron or Steel may wound the Branches or Bark) rub off the Moss from the Body and Branches of the Tree ; and, after the first Shower of Rain, take a Hair Cloth, or a very coarse Linnen Cloth, and rub the Body and Branches of the Tree, by which you'll clear all the Moss from the Tree, and will give the Sap free Liberty to perspire, which before was choaked or bound by the Moss, and the Tree will recover, and bear again good Fruit : Many times whole Orchards have been thus spoiled by Neglect, and many a Tree cut down, which, if a little Care had been taken, might have recovered, and produced as good Fruit as before : For it is Pity that Trees should be cut down, after being planted twenty or thirty Years or more, nay sometimes whole Orchards, when by a little Labour they may be made to bear Fruit again, by only having a good Hand to lop or cut off the Branches near the Fork of the Tree, leaving only one Branch to draw the Sap, so that in about two or three Years they'll have a fine Head again, and full of Fruit, if the Seasons do not prevent it ; which, if cut down might not have happend in the Life-time of the Person who cut it down.

Now one Observation ought always to be made in Pruning, be it either with Knife or Chissel ; let the upper Part of the Branch cover the lower Part in a Slope, which will prevent the Wet from hurting or rotting the End, as sometimes it does in large Arms, and many times endangers a whole Tree by rotting the Body.

Now



Now as to the managing new set Trees with the Manure : when you dig your Hole to plant your Tree, if the Tree is pretty large, then mix about two Quarts of the Manure among the Earth, stirring it very well that none may lie in Lumps ; or screen it, that it may mix well ; but if your Tree is small, then one Quart will do, let none touch the Root, but first put a little Mould not mixed about the bare Root, that the Manure may soak gradually to the Root from the Moisture it receives from the Earth by Rain, or otherwise, in the watering the Tree ; but those Trees that are already planted, and you have a Mind to refresh the Roots of, put about two Quarts round the Roots of them at a little Distance from the Body, first moving the surface of the Earth to give the Manure a quicker Passage into the Earth, and so dissolving of the Manure by the Rains, Dews, &c. which fall. Do this twice a Year ; first at the Spring, when the Trees are in Blossom ; the same about *Midsummer*, when the Fruit begins to be large ; the first will invigorate and strengthen the Sap for the service of the Blossom, the second will add the same to the Fruit, to bring it to Perfection. But if you do not put the Manure itself, the like Quantity of the Lixivium to each Tree will answer the same End ; do it no more than twice a Year ; for too much either of the Manure mixed with the Earth at the first setting, or to the Trees when planted, or too much of the Lixivium, or Manure Liquor, is prejudicial ; for it is of the same Quality with spirituous Liquors, when applied to human Bodies, a little revives them, but too much destroys.

As for the Planting, remember to give them Space enough to spread their Heads, that the Sun may come to give his warm and genial Heat to improve the Fruit, as well as the Air, for both serve to bring the Fruit to Maturity : Also at the first planting secure your Trees, by some Stake or otherwise, from being shaken by the Wind, or disturbed by Cattle,  
 &c.



&c. for that obstructs the Root from taking a fast Hold of the Earth for its support ; by which Means many are lost, or wither away for want of due Nourishment.

*A Supplement to the Chapter on Fruit Trees.*

THIS Article comes within the Sphere of my Profession, and therefore have to say, that this is one of the greatest Improvements I ever made in my Farm ; and this I have done, by planting Rows of the hardy Standard Kerroon large Black Cherry-tree, Rows of the great *May Duke* Cherry-tree, that never fails bearing ; Rows of Apple and Pear-trees, &c. &c. all on the Grass Baulks of my plowed Fields ; but want of Room here, must forbear enlarging, and conclude with saying, that as to the Gardening Part, I profess it not ; but am ready to furnish Gentlemen with the red Lammas, white Lammas, yellow Lammas, Pirky, Dame, and white Coney-feed Wheats ; Rathripe and Sprat Barley-seeds, Sparrow-bill Oats, the most hardy Horn Grey Hog-pea, the large Union Blue, the fine sizeable Carolina, the Non-parrel, and the Hundred-for-one Pease ; Lady-finger Grass-seed, and other natural Grass-seeds ; also Lucern, St. Foyne, and other artificial Grass-seeds : Likewise with the four wheel most excellent Drill-plough, that carries two Hoppers on it, the three-wheel Drill-plough, the Wheel Horse-break, the two-wheel Hoe, the Double Plough of *Hertfordshire*, the Turnwrest Plough of the Wheel or Foot Sort, the double Broad-board Plough, the Patent Plough, the Mole-bank Plough, the Draining Plough, the Swing Plough, and the Bob-tail Plough ; the cleansing selecting Sieve, the *Dutch* Hand-hoe, &c. I also furnish Gentlemen with any Number of tame Pheasants, from two Shillings to seven Shillings a-piece, ready pinion'd ; and with any Number of Kerroon, or other young Cherry-



Cherry-trees, at one Shilling or Eight-pence a-piece, and so with any other Sort of Fruit-trees; particularly with the Parsnip Apple-tree, and the Orange Pear-tree, that no Gentleman should be without, for their extraordinary Benefits that they offer to their Owner, always ripe in *August*, and then of greater service than ordinary for eating raw, or baking in Pies or Tarts, in which they exceed most or all others. But least Gentlemen should be desirous to be informed of the particular Qualities of these two famous Fruit-trees I shall here give some Account of them.

*The Character of the Parsnip Apple-Tree.*

**T**HIS Apple is generally of a good Size. On the 3d Day of *September*, 1746, I weighed a full ripe one, and it ballanced four Ounces; is always early ripe; for though the Spring and Summer 1746, were for the most part cold wet Seasons, yet these forward sort of Apples fell from the Tree in Ripeness about the Middle of *August*; and I think I may affirm it for Truth, one Tree of this Fruit yielded me this Year twenty Bushels: with the Wind-fall Apples I made near a Kilderkin of Cyder, as soon as I had gathered them from off the Ground, and the rest I had taken directly from off the Tree, being about twelve Bushels, and laid them by in a Granary for eating raw, and in Pies and Pasties. But the main Conveniency of having these Apples so readily ripe in Harvest is, that they serve our Harvest Men to eat raw; and in this manner they prove a very agreeable Repast in quenching Drought with their pleasant Juice, and satisfying their keen Stomachs between Meals. But these Apples are most acceptable when eaten in Pasty. Accordingly my Servant bakes considerable Numbers of them: without the Assistance of Sugar; for these Apples, when ripe, pared, and cored, need no other sweetening



sweetening than their own Juice affords, and thus prove so pleasant, that our Workmen prefer their eating before Bread and Cheese, for it is a general Opinion among us Farmers, that this Fruit saves much Expence in that it supplies Cheese in a Family: Likewise for Supper these Apples make a constant Part of it, by being boiled, codled, or baked, till they are so tender, that they may easily mix in Meffes with Bread and Milk. In short, the Parship Apple is endowed with such excellent Qualities, that they may be made Part of a pleasant Repast, at a Lord's or at a Peasant's Table. Now this Tree is not to be had at any of the Nurseries near *London*, as one of their cheifest Nurserymen owned to me, for it grows only in and about the Country of *Gaddefden*. This Tree, and the Orange Pear-tree, I furnish to Gentlemen at Eighteen-pence a-piece.

*N. B.* Though I make Cyder from this Apple directly from the Tree, yet I have a Method to make it retain its pristine Sweetness for some time.

### *The Character of the Orange Pear-Tree.*

**T**HIS Tree I am Owner of, and is so large a one, that it has borne about twenty Bushels at once of pretty large Pears, which are always ripe in Harvest. It is of an Orange Colour, grows in the Shape of a Bell, therefore is called the Bell Orange-pear. And as it is thus early ripe, it gives our Harvest-men a Pleasure to eat them raw, for they have a delicate Taste; but is most of all acceptable to them in Pies and Pasties, because this Pear, in these Shapes, taste somewhat like Sweetmeat; and to say no more of it than it deserves, a Pye may be made of them with such Art and Cost, as to fit it for the Table of a Potentate,

Potentate. I have made Perry of these Pears directly from the Tree, and find it an agreeable Liquor, if drank forthwith, for it will not keep a great while, and it has such a delicate Smell, that if a Person holds his Nose over and near the Bung-hole, the Scent is just like that of an Orange. I have been in several Nurseries about *London*, and enquired for the like Fruit, but they own they have no such; nor do I know of any other Trees of it, than what I have in my Possession: However, I am ready to furnish any Gentleman with the same Sort for Eighteen-pence a-piece. And I do aver it from the Truth of Experience, that the Juice of the black Kerroon Cherry, mixt with Cyder made from the Parsnip Apple according to Art, will, with a very little Assistance, make a most noble tawny-coloured Wine, surpassing, in my Opinion, the Goodness of some foreign Wines. But to make this, several Sorts of Cyders, Perries, artificial Wines, and other Sorts of *English* Liquors, I intend to publish a Treatise of them in a short Time, with another, entitled, *ELLIS's Country Housewife, &c. &c. &c.*

*The Benefits of Breeding and Keeping Tame Pheasants.*

**T**HIS most excellent wild Bird that formerly was the most delightful Game of Gentlemen, is now become so rare, that there is hardly one to be seen in Woods and Fields. And as they are thus scarce abroad, it has put some Persons upon the Invention of breeding them tame; one sort of which are Farmers, and the other Gentlemen: The Farmer for a Market, because he has his various Fields of Grass and Corn to feed and shift them in; for without Ground to shift them into, there is no such Thing as breeding and keeping them in Perfection. And so the Gentleman for his own Use, who having the like Conveniency, may reap



reap the Profit and great Pleasure of having a numerous Parcel of these tame Fowls about his House; by which he may command a dainty dish, to entertain his Friends, at any time, in a cheaper manner than most Persons think of, provided he is acquainted with the Method of Breeding and Feeding them; wherefore whoever sends to me for these Birds, I shall send Directions with them. On *August* 28th Day, 1746, I sent an Honourable Gentleman fourteen of these tame Pheasants, as Stores to be kept for laying Eggs next Year, and for hatching them under Dunghills Hens. The Pheasants were three Quarters grown, being eleven Hens and three Cocks. This Gentleman, I may say, chuses the better Part, for as he has a bulky Estate, a fine Seat, Canals of Water, and Field Conveniences, he keeps these Pheasants, and other Rarities, that give him delightful Amusements, and which are not only advantageous to his Pocket, but also to the Mind and Body, because these are the Basis of Action, and Action the Promoter and Conservator of Health, in a fine Country Air. Wherefore no Gentleman should be without tame Pheasants, that have the Conveniency of keeping them; and they may safely have them sent either by Sea or in a Waggon, by a plain and easy Management, that I take Care of: Accordingly I furnish Gentlemen and Ladies with these charming tame Fowls, at any Time of the Year, that come more and more into Choice, insomuch that they are the Care and Delight of many, both of Gentlemen and Gentlewomen.



## CHAP. XXII.

## Of the VINES.

THEY require a light sandy Ground to be planted in ; if it is a litte stony it will thrive in it, if lying to the South, or South-East : and if the Bottom is chalky or gravelly under the Surface, where no Springs are. It cannot be well too hot or dry, if it is not addicted to Heath ; But if Brambles, it is a good Sign, and to be preferred to any other, for they are near a-kin to the Vine : Where that Shrub grows, such a Ground is the most proper for a Vineyard ; and the Declivity of a Hill still better ; though very much neglected in this Country of late Years ; but we have many Places bear the Name thereof to this Day, where they have been planted : Therefore Gentlemen should not be deterred, because they have not been cultivated as formerly, upon the Account that our Soil and Climate not being proper for the Plant ; (though the more Northern Climates, as some Parts of *Germany* and *Hungary*, produce good Wine as the *Tockay* Wines, &c.) If your Land is too rich, it only permits the Roots to shoot out the Branches and Leaves, but less Fruit ; the barren does not admit the Roots to be so luxuriant, neither do they enter the Earth so deep, by which Means they spread more towards the Surface, and so gives the tender fibrous Roots the Benefit of receiving the natural sweet and gentle Showers, Dews, &c. which imparts a pregnancy to this Plant, and do receive the cherishing Warmth of the Sun, and is more impregnated with the volatile Salts, which is drank by the delicate Pores and Apertures of the latent Roots, whilst those buried deeper are deprived of that Benefit,



fit, and and grow only fertile in watery and insipid Leaves without Fruit, and produces long and unbearing Branches, whose Joints admit, of no Produce; whereas the other will produce fruitful Joints, being very short like to the Joint of a Man's Finger, which are the bearing Branches. Now when you plant your Vineyard, let it be East and West, that the Dews may be off soon in the Morning, and receive the Dews last at Night; for the other Position, North and South, is not so good: When you have provided your Ground, having these Properties, then you are to get the best sorts of Setts for your Plantation as will come early, and be the soonest ripe in our Climate.

There is a worthy Gentleman near the *Bath*, who has a Plantation of about seven Acres planted with the *Burgundy*, *Champagne*, and *Frontinac*: He told me, that in the Year 1736, he made no less than eighty Hogsheads of good Wine: Also there is a Vineyard in *Rotherhitb*, which makes a large Quantity; and another near *Croydon*, both in *Surry*, of near twenty Acres, planted by a curious Gentleman; and there are several others within a few Years have been planted, to the great Profit of the Owners, had they disposed of their Wines when pressed. Now when you plant, dig your Trench near a Foot deep, and about a Yard asunder, for the more Ease of going between them to do the necessary Work that is required in the several Seasons of the Year: Lay your Trenches of an equal Size and Height; then set your Plants, let them be about a Cubit long, having three or four Eyes of the young Wood on them; you must have them of the Parsley Kind, the early black Grape, and the small Muscadel, which grow here; then plant them in the Bottom of the Trench, a little slopping; when done, cover them three or four Inches with the Mould; then level your Ridges, that your Setts may just appear above the Surface; then pro-



seed to plant your Setts something more than two Foot from each other; after this strew some of the Manure along the Ridges, not too thick, which will preserve them: In the Winter-season keep them weeded and hoed; when they begin to shoot, then set your Props, of what Wood you please, either of Hazle, Ash, &c. of about four Foot in Length, and the Thickness of a common Broomstick, placed on the North-side of the Plant; if any Suckers rise from the Roots of your Plant, cut them off, leaving only those that grow from the Stem; do this in *May*, and in *June* you will discover what Branches are to be left for the next Year; then tie them to your prop; at which Time prune, break or crop the Branches, but not cut them, because the Wounds with a Knife, &c. are not so apt to heal; do it in the Heat of the Day, for then the Sun will stop the bleeding where you break or pluck off; thus do till the third or fourth Year from your first planting, for till then you will have but little Fruit: When your Plants come to bear a Quantity of Fruit, as you may then expect, then you may leave three or four Shoots to each Plant, with about four Eyes; but when older, you may leave six or more from a strong Root.

In the latter End of *December*, or *January*, prune your Vines, and keep them always no higher than your Props; prune off all the small shoots, that you think not able to bear good Fruit, which you may see not only by the Branch but Eye; tie your Master-Branch, with a tender Ozier about a Foot from the Earth, and bend the Top of your Vine to the next Prop, about two Foot from the Ground, that your Ranks may appear in Form, or like an Arch; you must remember to tie your Shoots from the Eyes left last Year, for the new Shoots won't bend; a little Matter breaks them, so you destroy all the Fruit they bring forth, for they often break at the Joint: When you see the Fruit set, and are as big as a Shot,



Shot, then crop off the Top of your Shoots, leaving only two Joints above the Bunch; always preserving the strongest Shoots for the next Year. This must be done in *June*, or the latter End of *May*, if the Season prove Kind for Growth; now prune off all the Water Shoots. Then in *August*, when your Fruit begins to ripen, you must break off such Shoots as are grown too thick since your last pruning in *June*, or latter End of *May*. Remember not to leave your Fruit bare; but let it be a little shaded from the Heat of the Sun by Day, as well as the Dews by Night, which at this Season falls much: Now you are to remember, when you prune in *January*, to cut off the old Wood close to the Ground, and to supply the Place with the best of your Wood, which was left four Foot high, and must be ordered as before.

Now when your Vineyards want Amendment, as all Lands will, from whatever is planted in them, strew some of the Manure on Ridges, and about the Ground, between the Rows of your Props, in the Month of *November*, by which Means they'll have the whole Winter for the Manure to meliorate the Earth, and will add a fresh Vigour to the Roots of your Vine, and thereby prevent the Frost from piercing too severely the Roots. Use no more than sixteen Bushels of the Manure to an Acre to your Vineyard, as is beforementioned in Corn, &c.

Now as to the Vines planted against a Wall, Pail, or House, you may keep them to what Height you please, as the Place will permit: As to the pruning Part, it is to be performed as directed before; but when pruned, cut them in the Middle of the Joint; which must be done in *January*, *June*, and *August*. One of the best Artists I knew for cutting or pruning the Vine, was Mr. *Whitmill* at *Hoxton*, near Sir *George Whitmore's*, in the County of *Middlesex*, whose Wall round his Garden, and about his House, where the



fullest of Fruit from his Vines I ever saw : And his Observations on Vegetation in general were good and just.

Now when your Vine, that is already planted against your Walls, House, &c. want Refreshment, you may water them with about two Quarts of the Lixivium of the Manure, which will add Strength to the Shoot, when the Vine begins to put forth ; put it not too near the Stock, but scatter it, that the Roots may receive a Benefit : You may do the same about *Midsummer*, when the Grapes are small ; all which invigorates the Roots of your Vines, and makes them yield a much greater Plenty of Fruit.

Mr. *Hartlib* says, that in *Lombardy*, &c. in *Italy*, in that *Champaign Country*, the Vines grow in Hedges on Walnut-trees, and that they have three Harvest yearly ; first Winter Corn, which is reaped in *June*, and Vines and Walnuts are gathered there in *September* : Why may not many of our Gentlemen and Farmers improve this Way, and have a Crop that will be of Service, and but little Labour and Expence, as well as many worthy Gentlemen in *Herefordshire*, *Worcestershire*, *Gloucestershire*, &c. who by planting their Hedges Rows the Apple and Pear-Tree, from which Fruit they enjoy a most noble Liqueur both of Cyder and Perry ; so that some of it, when preserved and ordered in the best Manner, equal the best Wines from other Parts : It will be very little Expence after the first Plantation.

In *France*, there are three Ways they manage their Vines in the Vintages, viz. In *Provence*, they cut the Vine to about two Foot high, so make it strong and stubbed as our Osiers are ; which Stock beareth up the Branches without Props : About *Orleans*, they seem to be more curious, by making Frames for the Branches to run along : And about *Paris*, &c. they tie them to short Props, as is beforementioned.

Now as to the pressing of the Grapes to make the Wine,



Wine, there are many Ways found out : In some Parts of *Italy*, &c. it is said, they lower it with Water upon the Fermentation, to make it less furious, which not only spoileth the Colour, but taketh away their brisk Taste : Now if the Season here be wet, as it sometimes will be, and the Grapes not perfectly ripe, yet the green Juice, when pressed and put into Hog-sheade and carried into a warm Vault, will meliorate ; or if not, a Vault or Cellar, with a Stove in it, will keep it warm ; this Fermentation, and by standing with such a Heat, brings the Wine by Degrees to a good Ripeness, and fit for drinking. All green Wines should thus be brought forwards before drunk, as we have some from abroad, which many Persons too often find the fatal Effects of. I once squeaz'd about ten Quarts of Juice from the Gooseberry full grown, but green, thinking to make some Vinegar, which was put into two five Two-quart Bottles in a Case, and put them into the Cellar ; and in about ten Months after, wanting some Vinegar, sent for one of the Bottles up, which was fine without any Art ; and when tasted, was so like the Taste of *Rhenish* Wine, that several good Judges could not distinguish it. Some of this being kept more than two Years, the older it grew the more perfect it was in Likeness to the *Rhenish* Wines.

Thus we may have divers Sorts of good Wines from our own Fruits, if we would use the Method to gather them, and squeeze the several Juices, *viz.* the Currant, Cherry, Elder, and divers Sorts of blue Plumb, the Mulberry, &c. if when pressed you only clarify the Juices, it will make them keep the longer after Fermentation, &c. And especially to take the Raisin of several foreign Parts, and put boiling Water to them, after they are chopped small, about four Pounds to a Gallon ; and, after letting it foment ten or twelve Days ; then press it out ; this makes a very good Wine : But then, if you have a Mind to add a Flavour



vour of any of our Fruits to it as the Currant, Cherry, Elder, Plumb, Mulberry, &c. Then after clarifying the Juices as aforesaid, add to each Gallon one Pint, or Quart, to a Gallon of the Raisins so pressed, it will give it a Tincture of each Colour, and make it a pleasant Drink: 'Tis presum'd you need not put any Sugar to it, by Reason the Raisins are of themselves sweet enough: but if you use the Juices of our own Produce alone, you may add some Sugar to your own Liking. By this Way of proceeding there may be several Sorts of Wine made here, which to this Climate is as wholesome as those that come from abroad; by Reason we at present know not what Adulterations are used in foreign Parts, as well as here at home.



## CHAP. XXIII.

### Of GARDEN PLANTS.

#### *Of the CABBAGE.*

**T**HE Cabbage is an Esculent, of which there are many Sorts; and most of them, as Mr. *Parkinson* relates, are much propagated in the Garden: When you have prepared your Ground, sow your Seed either before or after the Manure; let the Quantity of Manure be in Proportion to the Space of Ground you sow, be it more or less, of sixteen Bushels to an Acre; and when the Seeds are grown to a Plant of about a Hand high, 'tis fit to be replanted: Then dig your Ground that you design to plant in; and after having prepared your Ground, set it out either three Foot or more, as you design the Plants to stand: Then with a hollow Trowel



we make a Hole, and take about a handful of the Manure and put into it, and with the Trowel mix the Earth and Manure very well together ; after this is done, set your Plant in the Hole so mixed : This mixing of the Manure with the Earth prevents any Insect from getting into the Roots of your Plants ; for many Times the Worm, like a Bott, gets into the Roots, which hinders the Plant from thriving, and spoils it from Cabbaging ; and often in a dry Time, when the Plant is grown large, the white-wing'd Butterfly lays his Eggs, which brings a Caterpillar at the Bottom of the Leaf, and when they come to be large, devours the whole Plant ; nay whole Plats of Ground are eaten by them.

Now to prevent this Mischief, take some of the Lixivium made of the Manure, and water the Plants with it, which will destroy all the Caterpillars, be they ever so many, nor will they come there any more : This Lixivium will not annoy the Plants, except you put too much on them, but will make the Plants grow the larger, as he has been often experienced.

You must not forget to mix the Manure with the Earth ; for if you plant any Roots without mixing it, and setting them in the Hole made, the Quality of the Manure is such, that it will destroy the Plant, as has been often found by Gardeners who have not followed the Directions, whereby they have lost their Labour, and condemned the Manure for what was occasioned by their own Obstinacy and Folly : For if a Vine or any Tree is planted on the Back of a Chimney or Oven, where there is a continual Heat ; this genial Heat revives the Vine or Tree, and brings it forward, when a greater Heat would destroy it. The Manure therefore must be used moderately, which makes it the more valuable ; for all Excesses are dangerous to Vegetables, as well as to the Human Body. These Caterpillars have destroyed whole Grounds, which is a great



great Loss to those Gardeners, whose Livelihoods depends on their Crops. These Cabbages that are thus managed are not so rank, but eat sweeter than those that are produced from Dung, which always adds a Rankness to every Sort of Greens, wherever it used. The same may be done in all the several Species of this Kind, as the Savoy, &c. Do the same when you remove the old Stalks to have Sprouts, or mix the Manure with the Earth, and the Advantage will be great, as Experience will demonstrate.

As for the Colly-flower, though it is more tender, yet it may be raised in *August* or *September*, after the same Manner; but they must be covered in the Winter, either in a Frame, or under Bell-glasses; and when you transplant them in the Spring, mix a little of the Manure in the Hole you set them in, which will make them thrive. Before they come to perfection, water the Root once with about a Pint of the Lixivium of the Manure; but at other Times water them, when wanting, either with Pond, River, or Rain Water, and they will be very large Flowers.

### Of the ARTICHOKE.

The Artichoke is another Sedum or Esculent that is planted in the Garden, and is commonly set in the Month of *March* from the Eye or Off-sett that grows to the old Roots the Year before; and when you intend to plant a Piece of Ground with the Eye or Off-sets, take off the Eye from the old Root with a Fibre to it, for one String or Fibre will be sufficient to bring the Plant forward; then, as in the transplanting the Cabbage, make a Hole with a hollow Trowel, and put about a Handful of the Manure in it, which you must mix with the Earth, and stir it well with the Trowel, that none of it remains in Lumps; then set the Eye or Off-set



set, and it will take a strong Root. If it proves a dry Season, put about a Pint of the Lixivium to the Root of the young Plant, but not too near it; but this must be done only once in the Season, and if more Water is wanting, take Pond, River, or Rain Water, as before. You may put a Quart of the Lixivium to your old Plants, and no more; but remember not to pour the Lixivium near the Plant, but at a small Distance a little round it, which will make it produce many more Heads than is customary. The larger Roots may be watered twice with the Liqueur in the Summer Season, and as often as wanted with the Pond Water, &c. which will do the Plant much good, and make it eat more pleasantly.

### *Of the ASPARAGUS.*

The Asparagus is a Garden-plant, though about *London* (as *Battersea*, &c. in *Surry*) it is planted in Fields, the Beds being about four Foot wide, and of such a length as the Field will allow. They are planted in a Trench about three Foot deep, filled with rotten Dung even to a Mould, and sifted fine; though some do it with Horse Dung not rotted, which must be trodden down as hard at the Bottom as possible; then within about a Foot of the Top put some of the fine sifted Mould, till the Bed is high enough to receive your plants, which must be at least six Inches above the Surface of the Ground, your Plants being a Year's Growth; then put four Rows of the Plant in each Bed, and about eight Inches asunder, till the length is full: So let them remain full two Years before you cut them, and they will be the stronger and better; though some cut not till three Years after they are so planted. When your Work is compleated, and Roots planted, as is before directed, then scatter some of the Manure over the Beds, not too thick, but only so much as will colour the  
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the Earth; and as the Rains and Dews fall and dissolve the Manure, it will soak into the Beds: Do this twice a Year and no more, the same to the old Beds, and not oftner, which will make them grow stronger, and encrease in number of Heads: But it is found by Experience, that if you make a Bed of fine and good sifted Mould, with three or four of the Seed put into each Hole, about two Inches deep and eight Inches asunder, and let them grow, and not remove them, only manuring the Ground twice a Year, as is before directed, you will thereby save one Year's Growth, or cut them sooner; for the removing the Plant from its first Growth gives a great Check to it, and is a Hindrance of one Year or more to recover the same Strength it had.

### Of SALLETING *in several Parts.*

When you have prepared your Ground or Beds, where you design to have your Salleting grow; then scatter the Manure on the several Beds you design to sow before your Seeds; then rake your Beds, that none of the Manure lie in Lumps, or if you have a small Wire Sieve, sift some over very thin; then sow your Seed; and after you have sowed your Seed, and raked it then sift a little more of the Manure as thin as possible, which will preserve your Seed, upon its first appearing above Ground from Slugs, Snails, Worms, or any of those other Insects, that many Times destroy a whole Bed: And when you transplant any of these Kinds into other Places, for the better and larger Growth of the Species, prepare your Beds with sifted Mould, if possible mixed with the Manure, by which Means you will not only preserve your Plants from being eaten under the Earth, and from the Slugs and Snails above, but also have a larger and more delicate Kind to eat.



*Of the* CUCUMBER, MELON, &c.

These Seeds are generally raised in a hot Bed, if desired to be had early, for our Climate will not admit of its being sown in the naked Ground till *May*, by reason the Plant is so very tender at its first Appearance; as also the Runners are soon checked or blighted with any little Cold or Wind: They must be, at the first growing, diligently attended, and water'd with Pond, River, or Rain Water; for Pump Water is too cold for the young Fibres, and hinders them from thriving. There are found out by the Ingenious divers Ways of making hot Beds: but the most common and durable, is the Horse-dung or Litter well trod into a Trench, and made as solid as possible, let it be staked or bound about with Straw or Hay-bands, to keep it together, to about three Foot high, and four Foot wide; then sift about six Inches of good Mould, or thoroughly rotten Dung, or an old Melon Bed entirely turn'd to Mould; then cover it with Frames or Glasses, as suits your Conveniency, and let it remain till the Fermentation, or great Heat is over, which will be in three or four Days; you may try with your Finger, for if you can't bear your Finger in it, it is not fit for your Seed; then after this Heat is gone off, put in your Seed; and when your Seed is in, scatter a little of the Manure over your Bed, very thinly, which will prevent the Slugs, Snails or Worms from annoying the Plants, as many Times they do: When your Plants are grown fit to remove, then thin them, and transplant those which are to grow up in another place (letting those remain that you design shall grow in your Frame) to some prepared Ground, covered either with a Frame or Glass.

Now after your Plant is thus raised in your hot Bed, a lesser Heat will serve to bring them forward, as a Bed of an old Cucumber, or Melon Bed, of the last Year,



Year, prepared after this Manner; first put on the old Bed about an Inch thick, or more, of the Manure, to prevent the Worms from rising, as will be naturally bred in the old Beds; then put some Pidgeons and Fowl's Dung mixed together, about two Inches thick; then put about an Inch thick more of the Manure, and spread it as even as you can; if you require it hotter, put more of the Pidgeon and Fowl's Dung; then over all, sift about six Inches of the best Mould; then put on your Glafs or Frame with Glaffes: After your young Plants are set or planted, which, with watering them, as is before said, will grow very strong, and produce a very good Fruit: All the Species of the Melon Kind may be raised after the same manner, only they do not require so much watering as the Cucumber: When you water, do not let any touch the Leaf, but put it to the Root only. Also I have seen very good Melons raised from the mowing of the Grass-walks, and likewise from Weeds cut green, and put into a Hole, to contain about a Bushel or more; then tread in your Grass as close as you can; then cover it with some good Mould finely sifted, to be about six Inches high from your Grass, and cover it with a Bell Glafs and when it begins to ferment, put in your Seed of the Melons, for this Heat is not so hot as the Horse Dung; and from this Way I have seen as good Melons raised as the best Artist could do. When your Beds are thus prepared, scatter some of the Manure very thinly over the Bed, to prevent the Slugs, &c. from preying on the young Plants.

Now when the Season permits to sow your Seed in the open Ground, you must dig a Plat in your Garden to what Quantity you intend to plant out; and if your Ground is not good by Nature, then sift or screen it, that the Fibres of the Root may have more Liberty of shooting. When your Ground is thus prepared, make little hollow Holes, like a Dish, and put three, four, or more Seeds about an Inch deep into the Ground;



Ground; then scatter some of the Manure thinly round the Holes, to prevent Slugs, &c. then cover the Place where the Seed is with a Cabbage, or some other large Leaf, to keep off the Sun's Heat till the Plant rises above Ground, and water them a little till you see the Plant up; then you may put more Water, for too much at first may rot the Seed. When your Plant is up, and got the fourth Leaf, if you have Occasion to remove any, you may do it, but not before, for no Plants of what Kind soever ought to be removed from their Seed till the fourth Leaf, Nature having then a little Strength to support itself by a small Addition of its Fibre upon the second Shoot, which is not so upon the first emitting of the Seed for Generation. When the Vines of your Cucumber has run as far or as long as you desire, then nip off the End of the Runner, which will make the other part set their Fruit, and those left grow the better, by reason that the Vine of the Cucumber is stopt from drawing the Sap, which will add to the Fruit's growing sooner to Perfection; and many say, that 'twill blossom more in the Shoots left, and cause fresh Shoots at each Joint, for the Produce of Fruit.

When you sow the Pompion, put the Seed into the Ground about the End of *April*, at least a Finger's Breadth; and if 'tis sown on an old Dunghill, it will grow and spread a great Way.

### *Of the* ONION, LEEK, &c.

These Roots are much in Request, though chiefly for the Kitchen: They love a good warm Ground, and may be sowed in *February* and *March*; some sow them sooner, but then if the Frost come, Care must be taken, else you may be obliged to sow again. After you have sown the Seed, scatter some of the Manure

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over the Bed, but not too thick: The same must be done with Leeks.

Now when your Onions are come up, if they are too thick, they must be thinned either by pulling them up to eat when young, or be transplanted into some other Place: And the same must be done by the Leeks; but when you transplant the Leeks, they should be set in a Hole made pretty deep: Before you set them, put in a little of the Manure, and with the Trowel mix the Earth with the Manure, as is before directed; then set in the Leeks; by doing which, you'll soon see by its Growth that your Labour is not lost.

The Winter Onions must be sowed in *August*, in the same manner, and then you will have them in Order before the Cold comes; and when they are thinned, the Remainder will be good Onions next Summer; if they grow too strong in the Blade, tread them down with your Foot, which checks the Sap, and makes the Root increase and be larger.

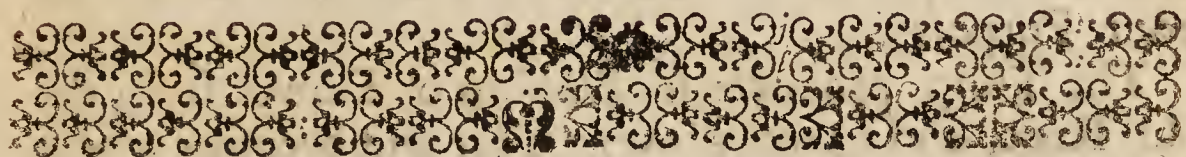
The Garlick and Skerrots, &c. must be sowed as the Onions and Leeks; and must be ordered in the same manner.

### *The several Sorts of HERBS in general.*

The Spring Time is the most proper Season for the sowing of the several sorts of Seeds, that are to be provided for the Kitchen, as well as those for Medicinal Uses: Beds are to be prepared, as has been before related; and after the Seeds of each sort are sowed, sift some of the Manure over the Beds, which will defend them against all Slugs, Snails, &c. give a Vigour to each Plant, and make them grow stronger in their Roots, and will add also to the several Species in their Seeds, by the hidden Quality of the Manure; for every Shower that falls, as well as the Dews, dissolve its nitrous Quality, and in Fact makes it the Life of every Vegetable: The  
finer



finer the Ground is made by sifting, &c. as well as good digging, the Plants will shoot with more Ease, and receive the Rain and Dews with greater Freedom; but when Stones, &c. are in the Ground, they obstruct the small and tender Fibres of each Plant from taking the Benefit of their Mother Earth.



## CHAP. XXIV.

### Of FLOWERS.

#### *Of the TULIP, and other Bulbous Roots.*

**O**F the many Sorts of these Bulbous Roots, none are more respected in Parts abroad than the Tulip; for in the Gardens in *Holland*, they have been valued at a great Rate, tho' at present they are much abated of their Price; but still some of them are valued at thirty or forty Gilders.

As to the Planting them, the Ground must first be sifted very fine, for all the Roots of these Kinds shoot forth a small tender Fibre, so that the least Obstruction hinders the Bulb from thriving: Now after you have sifted your Ground (which must be a light Earth) for setting the Roots, set your Roots about four Inches deep, and about the same Distance from each other; whereby the Fibres will have full Liberty to shoot, and consequently make the Roots increase and be the stronger, and shew his Blossom the fairer: After you have set the Root, about the latter End of *August*, or Beginning of *September*, in good light Earth, or rather on a sandy Ground, where-



in no Dung is to touch the Bulb ; then spread or sift some of the Manure very thin over the Bed, by which means no Worms will abide there to annoy the Roots, nor any Slugs touch the Leaves : When they come up in *March*, &c. then a little more of the Manure may be thinly spread on the Bed ; but Care must be taken not to let any of it fall on the Leaf or into the hollow of it : This little Care will answer all your Purposes.

The Tulip produces his Blossom or Flower from the old Root, and changes every Year and becomes a new Root, as do most of these bulbous Kind, whose Stalk and Flowers grow from the middle of the Bulb : Their Increase is from the Bottom of the Roots, and the Stalk that shoots from the Semen in the middle of the Roots, produces the Stalk, Flower, and Seeds of Tulips, &c. which falls away after the Tulip hath done his Operation, as is before said : The new Root is produced from the Bottom of the old Root, whilst 'tis in Vegetation to its productive Part ; as Stalk, Flower, &c. which feeds it till it hath quite lost its Force ; and then the Stalk withers about *June*, and remains fixed to the new Root or Bulb. The Tulip, and most or all bulbous Roots, love a fresh loomy Ground, not stiff ; the finer it is sifted the better, and none of the Manure should be put to their Roots : Remember likewise that all Spring Flowers should be put into the Ground in Autumn or *Michaelmas*, and those that blow in Autumn, &c. in *February* or *March*.

Now to have new Faces, or different sorts of these bulbous Roots, or indeed of any other sort of Flowers, they must proceed from the Seeds of each Flower ; and as the Tulip-seed is long before their Flowers appear, yet when the Seed is saved from good Flowers, they will answer the waiting so long as six or seven Years ; I believe none more than the *Dutch* have found their Account in so doing, by the many and several sorts of Breeders they have raised, which they sell at great



great Prices ; some of their new Breeders, and such as produce a bold Flower with a large strong Stalk to about three Foot high, are sold for five Shillings a Root : I once saved the Seed from some of the *Triumph of Europe*, which I had from *Holland*, and waited for the Blowing ; some came in five Years, some in six, and some the seventh Year ; and from them came many sorts, of what is called the Mother Colour, of different Kinds ; some broke into very fine Colours, but at their breaking into Colours, they shewed how Nature sported in the Variety of them in each Blossom ; for in the same Quarter were divers Beds of Tulips that had broke from the Mother Breeders I had brought from *Holland*, as the *Baggot primos*, the *Incomparable*, the *la Reine de Mere*, the *Baggot Regeau*, and several other sorts of good Tulips ; and from these Blossoms in their Flower-Leaves of the seedling Tulips, were Appearances of most of these broken Tulips ; which shews, (how surprizing soever it may seem) that the Farina, or Dust, that is at the Bottom of each Tulip, or from any other Flower, should get into the Seed-Vessels of that which stood twelve or fourteen Foot from it ; though 'tis conceived the Wind carries these little Particles, like Dust, from each Flower, to incorporate its Colour in the Seed-Vessels of one another : But it is my Opinion (and it hath been approved of by some ingenious Gardeners and Persons of Speculation) that the little busy Bee, by searching into every Blossom, and out again in a Moment, carries some of the Farina or what hangs on the Petulants of these Flowers, along with it to each Flower, on its little hairy Legs, which incorporates with the Farina of the other Flower before its Vessels are set to inclose its Seed ; by which Means so many Colours are struck in Flowers, that blow at the same Season, if standing near each other, that it becomes sometimes a Wonder : Though some Part of it may be accounted for this Way, yet I leave it for some other more curious



Enquirer into Nature to find it out more perfectly. Again, another Way I conceive whereby you may have different Colours in your Seedling Plants, as of Auriculas, &c. that blow at the same Season, is to mix divers sorts of Flowers, of the Colours you like best of the same Time of Blowing, on a Bed together, whereby you may have them of various Colours: some think that many Times the little Fibres in the Earth, mixing together, cause a Variegation in the Leaves and Flowers, &c. I knew a gilded Philirea give the same Variegation to a Jessamin in its Leaves; as also the gilded or Orange Mint growing under an Apricock Tree, variegated the Leaves of it. Pots also standing near one another with Flowers, may by this means mix their Farina; as when you intend to save the Seed of any Flower: You may have a Flower from a Seedling worth all of that Kind you had before.

*N. B.* Some that are curious, and have not prepared so much Ground for their Tulips as will be a full Bed, make a Hole pretty deep with a Dibber cut flat, or Trowel, and put some fine Sand at the Bottom; then put some good Mould after it to set the Root in, that it may strike its Fibres in it, which will make the Root thrive, and produce a fine Blossom.

### *Of the* AURICULAS.

These are Spring Plants, which flourish in *April*, and are very beautiful; and when Care are taken of them, the various sorts make a fine Collection among the Florists, which Collection is generally set in a little Pot on stands in the Garden, out of the Rain, which spoils the Beauty of this Flower, by washing the Meal that is on it, which adds to the Pleasantness of it: Now these are commonly raised from Seed which produces new Faces and very much delights the Florists; and the Flower is commonly called after the Name of  
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the Gentleman or Gardener that raised it, so that they are known by the Names given at their Feasts, which are either by their own Names, or those of the King, Queen, Duke, Dutcheſs, &c. There is no Way to get these new Faces, or new Flowers, of any Kind or Specie, but by the Seed; for the Increase of old Plants by their Off-ſets, of every Specie, are generally the same as the Mother Plant; therefore the Seeds of these Plants should be carefully ſaved: If they are ſown when they are ripe, and a little hardened, they may appear above Ground that Season, before the Frost comes to check them; and when the Frost comes they must be sheltered from it under a shed, but no longer than that lasts. When the Seed is ſown, it must not stand dry, but kept watered, else it will not come up till the Spring; and when it is ſown in the Spring, it must also be kept moist; and when the Seed is up in *April* or *May*, it must be ſet in the Shade; for the young Seedlings being yet tender, will not endure the Heat of the Sun, but will ſoon be parched up by its ſcorching Heat: You must ſow the Seed in very fine ſifted Earth, covered over with ſome Willow Mould finely ſifted; then ſcatter your Seed thinly over the Mould, it will ſink deep enough into the Mould with flatting it with the Palm of your Hand; for this Seed, if put too deep into the Earth, will be a long Time of coming up, if ever it does; for many Perſons loſe this, and many ſuch ſmall Seeds, by ſowing them too deep: As they increaſe in Growth, let them be tranſplanted into other Pots or Caſes, till they are ſtrong enough to be put into Beds in your Garden, or into little Pots to blow in; the Composition of Earth that this Flower likes beſt, as hath been experienced by many, is this: Take ſix Barrow full, more or leſs in Proportion, of rotten Dung, that is as it were Mould; let it be of Horſe or Cow, either will do when rotted to Mould, and ſift it through a Wier-ſieve; then put one Barrowfull of Sand and one Barrowfull of the



Manure, mix these together, and let it run through a Sieve to mix it the better, whereby you will prevent all Worms and other Insects from harbouring in the Mould, and the Flowers will shew themselves in better Strength at their Blowing: When you design to preserve the seed from your best Flowers, as they generally are such as you put in Pots to be on stands in the Garden, let not the Pots stand long under the Shed, for that draws your Flowers, and the Stalks become weak, and many times wither, when it comes into the Sun and Air, by being too long kept under shelter; so that the Seed of the best Flowers will be lost for that Season, which to a Florist is more valuable than the Flower itself. I had once vast Variety in saving the Seed of a Row of Auriculas Plants, in Pots standing by a long Bed of Polyanthos of divers sorts. Thus almost any Colour may be intermixed with Flowers blowing at the same Season, and placed near one another.

### Of the ANEMONE.

This is a Spring-flower, and delights in a loomy Mould, that is fresh out of the Common, or any other Ground that is not stiff, and mix some good Mould with it to seporate it a little; to about six Barrowfulls, and one of the Manure, mixing it well together, either by sifting or otherwise, which will prevent the Worms and other little Insects, as the Millepedes, &c. from lurking and hiding themselves under the Roots, as they do in these Roots, where you will find them when taken up to dry. There are divers sorts in *England*, (though the *Dutch* seem by their Catalogue to have many more sorts, and some at large Prices) which may be planted or set in the Ground, to come up several Months following, after one another, by beginning to plant them from *September*, and so on to *March*, and some of them will  
blow



blow from *December* to *May*. Now the seed must be sowed when it is dry, and must be gathered before it is quite ripe, else if any Wind comes, it will all blow away; whence it is called the Wind-flower. You may sow it in Cases or Boxes, or in a Pot with fine Mould, which will produce you many new Colours. There are many of them raised about *Battersea*, in *Surry*, and in the Gardens near adjoining, by divers Names.

### Of the RENUNCULUS.

Those called the *French*, are become now most in Request, and are much increased by their Seed, which is sowed in Cases or Borders, and will endure the Winter with us, if not extreme hard; when they came first to these Parts, we were so fond of them, that by nursing them too much, many were lost: They love a fine sifted Mould, mixed with a little rotten Dung; they'll agree and thrive very well with the same Mould as you prepare for the Auriculas; that mixed with the Manure, will very much increase them, and prevent the little Insect called the Millepedes, as in the Anemone, from harbouring in the Root, as they otherwise will do: The Variety of double Flowers is very agreeable, and some very large, as I have seen in the Gardens at *Clapham*, *Barns-Elms*, *Mitcham*, *Mortlack*, and many other Places, as about *Chelsea*, &c. The *Dutch* have great Variety of these, and many other sorts, which increase very much from their Roots; but if you expect any new sorts, they must be raised from the Seed which is saved after the Blow of the Flower is over: When the Seed is dried a little, sow it, and some will appear at the latter end of the next Year or the Spring following. The several Sorts we have here, may be increased the same Way.



## Of the HYACINTH.

This is a Spring-flower of the bulbous Kind, and hath many Fibres: There are many sorts of this Flower, as the white, blue, and flesh-colour, both single and double; some of them flower early in the Spring, and must be put into the Ground in *September*; they must not lie out of the Ground, for the Root is so luxuriant that it will perish if they do: The *Dutch* have many sorts both single and double, and value them at a very great Price: They increase very much from the single sort, which is very prone to produce Seed; and it does the same with us here, whereby many new sorts are raised, and very beautiful when in Blow; the double very seldom gives a Seed Vessel, but sometimes it does, the Seed of which is very valuable, and with Care will produce a fine Flower: The Seed must be sown in Cases, or Boxes, and must stand two Years before they are removed; then plant them into Beds, well prepared and sifted very fine; they love a fresh loomy Mould, not too much Dung, by reason it may rot the Roots, and planted in some dry Bank or Bed, for they do not love too much Moisture, because the Root itself is of a moist Nature: The Seeds may be planted in Beds, but being small upon their first Growth, they are more subject to be lost, except the Ground is sifted through a very fine Sieve, when they are to be removed.

When they are planted in *September*, in Beds or otherwise, put them in about three Inches deep, and about four Inches asunder: When your Bed is full, cover them thinly with some of the Manure; and when they do appear in the Spring, sprinkle a little more of it, but not on the Leaves, whereby your Roots will increase and be the stronger; it will likewise make them blossom more, and be larger Flowers. I had many Hundreds from every sort, both of blue, white, &c.

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from the Seed, some in three Years, and some in four ; by which means we may enjoy as great a Variety as the *Dutch*, who value some of theirs them at sixty Guilders or more : The sowing of the Manure prevents the Worms and other Insects, as is before mentioned, from lurking in the Roots, either in the Winter or Spring.

### *Of the* NARCISUS.

This is a Spring-flower and blows early, of which there are innumerable sorts ; for I have had above sixty sorts from *Holland*. If planted in good sifted Earth, they'll grow tall, and bear many Blossoms on their Heads, and afterwards yeild plenty of Seed, which may produce many new Kinds. They need not be removed every Year, like other bulbous Roots, but as the Roots increase in strength and Off-sets, they must be moved to make Room. These Roots will lie out of the Ground as long as any Root, having a very thick Coat to defend themselves. I have raised many of them from the Seed ; though it is as well to buy them, as to wait for them from Seed, they being a Flower of small Price ; yet the *Dutch* value some at two Guilders a Root. After the Leaves are cut off from the Ground, where they grow to flower, &c. sift some of the Manure, which will increase them, and cause the Roots to shoot a strong Stalk the next Spring. and make more Blossoms on the Stalks.

### *Of the* CROWN IMPERIAL.

This is a Spring-flower, and comes early ; the *Dutch* have many sorts of them that are not seen here ; for they have near fourteen Sorts, and we have not above four. They like a good fresh Mould, and will thrive almost any where ; but if a little Care is taken of them, they'll

they'll blow strong the Beginning of *March*; if they are put into the sifted Earth among the Spring-flowers, they'll give a strong Stalk and larger Blossom. I have sowed the Seed and sown it, but the Time of their blowing from the Seed is as long as the Tulip; tho' from thence it is you must expect new Faces. The *Dutch* are very patient in raising from Seed all Sorts of Flowers, by which means they are become the greatest Florists, and many of them are thereby grown very rich.

### Of the IRIS.

This Flower, of which there are many sorts, blows in *May* and *June*. There are above twenty sorts in *Holland*, and many new ones are raised from Seed. The *Iris Calcedonica*, which we have here, is a very beautiful Flower; it is also called here the Toad-flag, having its Leaf spotted like the Belly of the Toad: They all love a fresh loomy Soil, sifted fine, which makes the Root grow larger, and strengtheneth the stalk and Blossom, especially if the Manure is sifted thin over the Bed, before they appear above Ground. The Seed may be sown in Boxes or Cases, for two or three Years, after which they will be large enough to transplant into Beds. When you sow your Seed, sprinkle a little of the Manure on it after it is sown, which causes them to shoot sooner, and makes the Vegetation stronger.

### Of the FRITTALARIA.

This Flower blows in *April* and *May*, and sometimes sooner, if the Bed they are planted in lies in a warm Aspect: There are many sorts of them, the *Dutch* having above thirty sorts: They may be raised from Seed, as other Flowers are, from which many new sorts



sorts may spring: The Seeds of the best sorts must be sowed as the Tulips, and from them will be produced many that may be valuable. Put the Manure on the Bed, as is directed before.

### Of the CYCLAMEN or SOWBRED.

Of these two sorts, the Vernal and the Autumnal; the *Dutch*, however, have eight sorts; and that which they call the *Odoratus*, or sweet-scented with red Blossoms, they value at three Guilders. This Flower scatters its Seed as soon as it is ripe, and from thence will be produced many new Roots. It grows flat and round like a Turnip, which may be divided into Parts, but they are sometimes lost, if Rain follows the Cutting; but if you sprinkle some dry Dust when you cut them, to dry up the Moisture of the Root that issues upon the Division, it may preserve them; the Leaves come up after the Flower. Scatter the Manure thinly under the Leaves, which will make them blow stronger, and increase the Roots; or you may scatter some of it over the Bed in the Spring before they blow, or appear above the Ground.

### Of the LILLY and MARTAGONS.

These Flowers, of which there are several sorts love a light Ground, and will increase very much. The *Dutch* have a sort which they call *Lillium Album Maculatum*, whose Root as well as Flower is striped with a Purple Colour, which makes it very pleasant to look on; but the yellow striped Lilly is very much valued here, because it holds its Leaves all the Winter. The Manure must be scattered on them, when the Leaves are off, as they are in July and August.

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The Martagon being a Lilly (though in the Blossom it is different from the other specie of Lillies, having its Blossoms turned back, which has also the Name of the *Turk's Turbant*, or curl'd Lilly, whose Blossoms hang downwards with their Petals; their Culture are in all Respects ordered as the other Lillies: These Flowers are some of them yellow, some Scarlet, with various Spots: There is also a sort that comes from *Virginia*, which is very beautiful; they all increase very much from their Roots, and may be raised also from the Seed as the other sorts of Flowers.

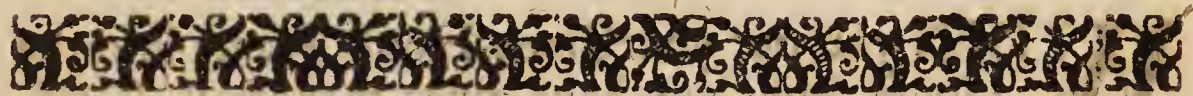
### Of the CARNATION, or JULY-FLOWER.

The Caranation is a Flower that is the Gardener's Pride; and many sorts, if raised from Seed, are brought to their Yearly Feasts to be named. No Flower hath more sorts than this, and none are more taken Care of, to make them appear beautiful. It will last after it is blown as long as most Flowers, and gives a fine scent as well as beautiful Colour. The Earth it delights in is mixed divers Ways; but that which the Curious make use of, who put each Plant in Pots to make them grow large, is as followeth: Take fine sifted Mould, with a little mixture of fresh Earth, to about six Barrowsful of Mould and one Barrowful of Drift-sand, and one Barrowful of Manure; mix all well together, and let it run through a Wire-sieve to mix the better; then keep it dry, till it is wanted for the Pots or Beds to plant your Flowers in: There are many new Faces raised every Year from their Seeds, which make the different Kinds almost innumerable; the long-podded sort are much admired among the Curious in two Respects, *viz.* blowing without Trouble, or bursting; whereas the round-podded must be attended, and the Pods opened, else they will



will not shew their Blossoms to any Advantage. As to the Management of this Flower in general, it is so well known among the Florists, that it is needless to repeat it; and besides, what relates to this, as well as many other Kinds of the bulbous rooted Flowers, has been already fully treated by Mr. *Bradley* and others, whose Ingenuity in Gardening will always shine.

As to the bulbous Roots in general, they may be used in the same manner as hath been shewn before as to the setting them in Pots or Beds; and when they are planted, sift some of the Manure thinly over them; but always remember, that the Spring-flowers are to be set or planted in *August* or *September*, and the Autumn-flowers in *March* or *April*; and a little before each sort appears, either in the Spring or Autumn, sift or scatter some of the Manure about the Plant, in the Bed or Pot, to prevent any of the Insects from harbouring in the Roots, &c.



## CHAP. XXV.

### Of SHRUBS in general.

**W**HEN you plant any Shrubs, mix some of the Manure with the Earth; to each Plant or Shrub mix about a Pint of the Manure, such as the Rose, Mezerion, Syringos, &c. Let it be mixed very well, that none of it may lye in Lups; then plant the Shrub in the Earth, but not too deep. After your Shrubs have been planted, and taken good Root, they may be watered with some of the Lixivium twice a Year, as other Plants, *viz.* in the Spring and Autumn, which will make the Plant thrive, and increase both in the  
Body



Body and Flower ; but if you have none of the Lixivium, then, at the same Times of the Year, sprinkle or sift some of the Manure thinly over the Bed where they grow : To the bigger Plants you may put about a Quart of the Lixivium roundabout the Plant, but not too near the Stock, only so as the Roots may receive the Benefit of it : This invigorates not only the Trees, but all the other Roots in the Bed or Quarter, whether bulbous or others ; but be sure to scatter none of the Leaves of Plants, but only about or under them.



## CHAP. XXVI.

### *Of GREEN-HOUSE PLANTS.*

**W**HEN you put your Green-House Plants into the House, after you have given them fresh Earth, as usual (which is always necessary, by taking about four or five Inches of the Top Earth out of each Tub or Pot) then mix two Gallons of the Manure with twenty Gallons of River, Pond, or Rain Water, stirring it well about the Tub or Vessel in which it is put ; let it stand twenty-four Hours or more, till the Water hath imbibed the strength from the Manure, and then water your Plants in the Tubs or Pots, according to their size ; your large Orange-trees with about a Quart of the Lixivium will be a sufficient Quantity, and to the smaller Pots, &c. about a Pint, and no more. Let this Watering be only twice a Year ; the first when your Blossoms appear ; the other, at the carrying them out, after you have given them the same refreshing of Earth in *May* : But you must water those Plants when they are in the Green-house with Water, either of Pond,



Pond, &c. that has stood in the House some time to have the Cold taken off, for fear of too much chilling the Roots; but water them no oftener than pure Necessity requires which must depend upon the Judgment of the Gardener. It is likewise the Part of the Gardener to keep such a Heat in his House, as will preserve his Plants in the extreme Cold; for many of the Artists keep so great a Heat in their Houses, that it draws their Plants too much, which makes them weak and sickly, and then any little Check makes them ready to expire, and very often die. Therefore, it is conceived, no House ought to be hotter than those Months are wherein they may safely stand out, which is from the middle of *May*, to the latter End of *August*, which may easily be known, by placing a Barometer in the House, (except some of those foreign Plants that come from the extreme hot Climates, as the *Ananas*, &c. which require a more violent Heat than our Climates admit of.) Now, as those Plants that do not require the Heat of the Green-house, but only a shelter from the Severity of the cold Air, as the Myrtle, striped Philereas, yellow Jessamine, the Rose Bay, or *Oleander*, the *Indian Bay*, &c. These, after they have been refreshed with Earth, as is before said of the Oranges, &c. must be watered with the Lixivium, in proportion to the Plant, as is before directed; and if you have a Mind to increase the Myrtle, or any of the other Shrubs that you like, about the latter End of *July* or *August*, cut some of the present Year's Growth, or Shoots about a Finger's Length, and take a Pot with some good Mould mix'd with a little of the Manure, as has been directed before, and set the Cuttings of the Myrtles, &c. with a small Stick, or piece of Tobacco-pipe, round your Pot, in as many Rows as it will hold, so deep that you may only see the Top Leaves a little above the Earth; afterwards water them gently with some soft Water, and set them in the shade and all, or most of them, will grow and be-



come good Plants, if Care is taken of them. The same may be done of the Honey-suckle, only their Cuttings must be taken sooner; but always remember to set them as deep as they will possibly bear, and cut them about a Foot long: Keep them well watered, and in the shade, till they take Root. In the same manner many of the Flowering Shrubs, as well as other Trees, may be increased, by putting them at first in Beds or Quarters in the Shade.



## CONCLUSION.

### *Some Observations of the Works of Nature in Vegetation.*

**A**S Nature shews herself in nothing more than in the vegetative World, and her Works have from all Ages been the Admiration of most Persons, be they Philosophers, or any other of the Learned of whatsoever Degree, who have bent their Study to find the hidden Meanders by which she works to bring her Matter to Perfection.

And though many have from the first Age searched to find out the Traces, how she produces so many and so great Variety of species from the same Mother (Earth) and each to be supplied with so many and almost different Juices, not only for Food, but also for Medicinal and Ornamental Uses on this habitable Globe.

So that the Source or Cause of so great a Mystery, is the Wonder of the whole Race of Men; and in Fact, past their finding out. And as the Great and *Wise Creator* hath put his *Fiat*, and hath determined every Species



Species of Greens, of various Shades, as well as Fruit, Flowers, &c. by which each sort is known; and by which he shews his Omnipotence, and the Rule by which he governs; so there appears in the smallest Plant as regular a Formation of his *Divine Order*, as in the bulkiest Things; and the Gradation it acts by is his *Divine Will*.

And as every Climate hath Plants agreeable to the extreme Heat and extreme Cold, it evidently appears, that the *Divine Wisdom* has so ordered and decreed, that every Thing that moveth upon the Face of the Earth, should receive Nourishment from it, to support Life under the Uses thereof; so likewise it is by his *Divine Will*, that nothing can possibly change its first Form or Image, (except by some monstrous Act) and even then there will appear some Part of the Original; for the Whole cannot be defaced: Though an Apple or Pear may be varied in Colour or Taste, yet no one can make an Apple a Pear, or a Pear an Apple.

This shews, that every Part of Nature acts solely by the Decree of *his Power*, from the minutest Things that moves, both above and under the Earth, wherever the Appointment of *his Will* hath allotted; and all receive their Nourishment from the same Mother (Earth.) Who can contemplate on this, and not adore the Author of these great Works?

Thus we see, that from the Act of Vegetation, every Thing enjoys Preservation of Life; and ought we not to pursue those Methods which the *Divine Power* hath shewed us, how we are to preserve Life, and improve it to the utmost we can, in all and every Part: And as several Attempts have been made, and new Discoveries found out in the Searches after Nature, to render this great Work complete, so we daily see, by the industrious Care of some Persons, how most of the Plants of every Climate are brought to grow in One; as in the Physic Garden at *Chelsea*, under the Direction and Management of the ingenious Mr. *Millar*, who hath shewed his



Knowledge both in the Theory and Practic Part upon most Plants; and the same in many Noblemens Gardens both here and abroad.

The Searches into this great Mystery are so delightful and pleasant, that but very few (who have Opportunity, Capacity, or Substance to support it) but will by themselves, or Assistance, have a Garden to divert (as it is called) their Leisure Hours from the Fatigue of Business, which very many, if not all, covet.

Those, who for the Sake of Contemplation, (if not taken up too much with that called the Wordly Affair, which must be soon parted with) delight in Retirement, and have more true Enjoyment in a Day, than in a Month otherwise; for *there* is pure Silence and Nature, and in the other, Noise, Hurry, and Uneasiness. It is for the sake of true Knowledge, which kindles in such Persons this Desire, and is what they covet to enjoy tho' they cannot command it.

And if some of our Ancestors had not had such Desires of Improvement, how many Families at this Time might have been destitute, when a few Acres of Woodland often recovers almost lost Estates; and preserve Fortunes for younger Branches, which otherwise must have been turned into the World under great Distress. Therefore, should not the present Age have a View to Futurity, as well as our Ancestors, that they may be remembered when they are no more; especially when the Expence is so small, compared to the Benefit received? Such Improvements are delightful while the Planter is in being; he sees his Industry prosper; and when Timber is come to Perfection, 'tis as necessary to sell it, as 'tis to cut a Crop of Corn when it is ripe, for the public Use: but then the Person, who is so happy as to enjoy it, should not neglect the planting again, that his Labour might continue a Benefit in the like Case; else he becomes a Destroyer, and does a Prejudice to his Country, as well as to his Posterity: this is incumbent on every one, in respect to Futurity.

As



As for Gardening, Orchards, &c. they are enjoyed by the present Possessor, as well as the former ; therefore the Person who follows this Rule, and serves his Country and Posterity, will no Doubt, receive a Blessing, in answering the Intent of the *Creator* in his First Command, *Increase and multiply, and replenish the Earth.*

How many Enquiries and useful Discoveries have been made by that Learned Body the *Royal Society*, within a few Years past ? and there is no doubt, but the same will be continued till Time shall be no more, by those whose Genius leads them to it, and study it for the Benefit of others, who have not Time or Capacity to do it.

Therefore this Talent is given them by the *Divine Power*, as his *Allseeing Wisdom* directs ; and that thereby every Country may serve each other in their respective Wants, so that a Commerce and Trade, as well as a Dependance, should be established round the Globe : This, it is conceived, was chiefly intended by the *Divine Will*, tho' put to quite another Purpose, by those whose Ambition and Envy have destroyed many Millions of People to satisfy their Pride and Avarice.

For, as the *Divine Power* never created any Species, either Animal or Natural, but what the Earth was sufficient for its support, (especially of the human) yet many, and large Tracts of Land lie to this Day uncultivated in every Region, which might be put to some proper Use for that Purpose : And as He hath given to Man, Reason to act, and improve His great Goodness, will he be idle in this State, and like the Beast, partake of the Benefit, without adoring the Wisdom of the *liberal Dispenser* of it ? And where the Climates are so extreme hot, and but a very little Rain falls to support the Plants in those Regions, the *Divine Wisdom* hath supplied the Defect, by the Exhalation of the Sun, which sucks up the Dew from the Waters, which distils, or falls on the Earth in the Night, to feed and support their Fruits, and bring them to Perfection, else they



would be burnt up by the excessive Heats : So that their Species are preserved for the Benefit of his Creatures allotted to those hot Climates ; all which shews his just Order from the Original of Time to have been, and is like so to continue to all Ages, which shall come ; except, by any just Cause, he should determine it otherwise, which alone is in His Power : For, if He with-holds His Rain (which [is, in Fact, the Food of Plants) a little longer than usual, how many of the annual Species suffer, and languish away, and die, for Want of the customary Blessings that are given for their Support ? And it is not only the Summer's Heat that destroys, but the Severity of the Frost does the same, when it pierces the Earth beyond the Extent of the small Fibres, which Nature as allotted to be fed from its Mother's Bowels ; and if the subterraneous Heat and Moisture should not supply respective Benefits to the smaller Plants, or Shrubs, as it does to the larger (whose Depth of Roots does not exceed the smaller) these small Plants, on such Extremity (be it from Heat or Cold) would be lost or destroyed ; but the *Wise Providence* has so ordered it, by their Seeds, that the Face of the Earth should be every Spring as finely adorned with the annual Produce of Plants and Flowers as before ; so that the same Species appears, as if no Defect had happened, and that there might not be any Want or Disorder in the Creation.

The Supplies of Nature carry with them in every Specie such a providential Part, that no human Person could form, be their Judgment ever so long. This great Perfection *shews* more than what can be derived from the weak Judgment of human Nature : And their continuance for so many Generations, is a plain *Demonstration* of the great Oeconomy of the first Decree.

What human Power could form any Thing so beautiful and perfect, as all the Parts appear in ? What human Art could form such a Mother, as should (from  
all



all Ages past, as well as to come) bring forth such a Supply of every Sort and Kind, to feed and nourish every several Specie of Nature, both above and under the Earth? Who but the *Omnipotent* could see so many Ages to come, and decree and order this Great Work, and the same to continue as at the Beginning? We see the strongest and largest Trees decay and die away, but this Mother is still the same. And if there is planted in the Room of one Tree another of a different Species, yet it does not refuse to give Nourishment thereto, but is willing to support it as the other, except it requires Contrarieties in Nature.

And as the *Omnipotent* hath given to several Species the Earth to preserve Life, yet it is not entirely to be performed by that alone; for then many Species would be languid and weak, had He not ordained likewise the Great Good the Sun (as the *Indians* call it) to give a Warmth, and by that to add a Vigour in each Specie which is incomprehensible; for by that Means all the Vegetative Part becomes purified, and perfect for the Use of every Kind. And this great Good is so placed, as to give his Warmth to every Thing round this Globe for the Nourishment thereof, as none but the *Divine Wisdom* could effect.

And as Vegetation was the first Act of the Earth to produce all growing Things of every Kind, as Grass, Herbs, Trees, &c. and every Specie having its own proper Seed in itself, so that when the Creation ceased all was perfect, and Births begun, out, in, and by its own Seed, and have produced the same from the Beginning, and will also *ad infinitum*; all which plainly proves the *Divine Omnipotent Power*, out of which, in which, and by which all Things are, and do subsist.

Therefore, for the improving and preserving of all and every of these Plants, or as many as grow under this Climate; and to add a Benefit to the Increase of the several Species in general, is the Design of this Treatise.

Acres.	The Serts of Grain.	The Annual Expence of a Farm, consisting of 180 Acres of Arable, and 20 Acres of Meadow and Pasture, supposed to be Lett at 100 l. per Annum.		
			l.	s. d.
70	WHEAT	For Seed, 2 Bushel $\frac{1}{2}$ per Acre, at 4s. 6d. per Bush. is	39	07 6
		For Manure, at 12 s. per Acre, is	42	00 0
		For Reaping, at 5 s. per Acre, is	17	10 0
		For Stacking and Thatching	2	10 0
		For Threshing 350 Quarters, at 2 s. per Quarter, is	35	00 0
		For Incident Charges and Expences, &c.	1	02 6
25	PEASE	For Seed 4 Bushel per Acre, at 3 s. per Bushel, is	15	00 0
		For Manure, at 12 s. per Acre, is	15	00 0
		For Pecking, Cocking, &c. at 3 s. per Acre	3	15 0
		For Stacking and Thatching the Ricks	1	15 0
		For Threshing 125 Quarters, at 1 s. 3 d. per Quart.	7	16 3
		For Incident Expences, &c.	1	00 0
20	BEANS	For Seed 4 Bushel per Acre, at 2 s. 9 d. per Bush. is	11	00 0
		For Manure, at 12 s. per Acre, is	12	00 0
		For Mowing, Cocking, &c. at 3 s. per Acre, is	3	00 0
		For Stacking and Thatching the Ricks	1	00 0
		For Threshing 100 Quarters, at 1 s. 3 d. per Quarter	6	05 0
		For Incident Charges and Expences	1	00 0
15	BARLEY	For Seed 4 Bushel per Acre, at 2 s. 3 d. per Bush. is	6	15 0
		For Manure, at 12 s. per Acre, is	9	00 0
		For Mowing, Cocking, &c. at 3 s. per Acre, is	2	05 0
		For Stacking and Thatching the Ricks	1	00 0
		For Threshing 75 Quarters, at 1 s. 3 d. per Quarter	4	13 9
		For Incident Expences, &c.	1	00 0
15	OATS	For Seed 4 Bushel per Acre, at 2 s. per Bushel, is	6	00 0
		For Manure, at 12 s. per Acre, is	9	00 0
		For Mowing and Cocking, at 3 s. per Acre, is	2	05 0
		For Stacking and Thatching the Ricks	1	00 0
		For Threshing 75 Quarters, at 1 s. 3 d. per Quarter	4	13 9
		For Incident Charges and Expences	1	00 0
15	FALLOW MEADOW	Grafs. For Manure	12	00 0
20		Rent, per Annum	100	00 0
		Tithes and Parish Duties	30	00 0
		Wages for three Men, at 7 l. per Ann.	21	00 0
		Board for three Men, at 5 s. per Week each	39	00 0
		For 30 Quarters of Oats for the Horses	21	00 0
		For 7 Quarters of Beans	7	00 0
		To Blacksmith, Wheelwright, and Collar-Maker	25	00 0
		To keep the Fences in Repair, per Ann.	25	10 0
		For Incident Expences per Ann.	22	07 6
			567	01 3

180



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ABOVE  
GROUND:

OR,

The most laudable and most certain  
Means of Enriching this Nation, by improving  
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raising to the Publick a Revenue of near Two  
Millions yearly, without any Burthen to the  
Subjects.

Recommended to the Public CONSIDERATION;

IN A

LETTER

TO A

Member of *PARLIAMENT*.







*S I R,*



OUR distinguish'd Zeal for your Country, and unwearied Application to serve it, on all Occasions, is a sufficient Apology for any One, who is convinced, he is offering to your Perusal a Matter of the greatest public Utility. And I call this the greatest, that, perhaps, has ever enter'd into the Heart of any private Man to conceive, or Head to contrive; and therefore without any farther Ceremony, I beg your Interest to recommend it to the Legislature, the only Hand which can give the Authority needful to its Execution.

Agriculture! The most laudable, necessary, and beneficial Branch of human Industry; which rais'd Altars to its first Inventors, and gave Immortality to its Teachers, at least to their Fame: Is from a most learned Science dwindled down to a meer Handicraft; while in Hands commonly illiterate, and incapable of further Improvement: Notwithstanding the Charges of dressing with the several sorts of Manure now in Use, are too expensive, and their Quantities vastly insufficient for improving the Barren Lands now Cultivated. Tho' doubtless other large Tracts of Land, now lying waste, would



would soon be cultivated, were sufficient Quantity of proper Manure to be had at a small Expence. And this one thing, so absolutely necessary, is here with great Humility propos'd to be supply'd. For Mr. *Liveings* hath not only invented a new Manufacture of Foul Salt; but has also invented and brought to Perfection a Method of putting the said Foul Salt on a Fermentation with several Ingredients, with which he makes a Compound Manure for Land, which from certain Experience and Observations (on all Sorts of Land) is found to excel all other Manure commonly used in Husbandry.

For which Reason His Majesty has been pleased to grant His Royal Letters Patents to the said *Liveings*, for the sole making and vending in *Great Britain* and *Ireland*, the said Artificial Compost, or Compound Manure.

Therefore to encourage the laborious and industrious Farmer, and also for a Publick Benefit to all his Majesty's Subjects in general, if the Method of making the said Compound Manure was made publick, we should soon see the Poor fully employed, our Trade and Commerce flourish, the Publick Revenues greatly increase, the Subject enriched, and Corn will become one of the Staple Commodities of *Great Britain*.\*

Sir, Of the three Sorts of Men, the most useful in a Common-wealth, (*viz.*) Farmers, Manufacturers, and Merchants; all wise Statesmen have always given the Preference to the First, as the most useful of all, and most deserving of Countenance and Preservation; as they produce the most necessary Means of Life, and breed the ablest bodied Men to defend the State, in

\* See, The several Letters to Mr. *Liveings*, concerning his compound Manure for Land, from several Gentlemen and Others, giving an Account of the plentiful Crops produced on their Lands, by dressing the same with his Compound Manure, published in a Treatise of Husbandry, by *Samuel Trowell*, Gent. which caused this Second Edition to be published by the Author.



Time of Danger. But how shocking then must be the daily Instances we have of the unfortunate Farmers! and how great must the Loss be sustain'd thereby to their Landlords? Undoubted such sad Disasters call loudly for the serious Consideration of the Legislature, to apply the most suitable and effectual Remedies, to Evils; which if not immediately redress'd and prevented, must bring very fatal Consequences upon the Publick.

The Farmer complains that, as Things stand at present, he Rents his Land too dear: That he's obliged to sow it every Year, and that not having Manure to keep his Land in Heart, it becomes so poor, that the Produce thereof is not sufficient to pay the Expenses; and that consequently he cannot pay his Rent to the Landlord. Whereas, continues he, a plowed Farm should raise, at least, three Rents, (*viz.*) One for the Landlord, One for Charges of Cultivation, and One to subsist himself and Family withal; the Truth of all which is universally allow'd. But whether he gives the only Reason for impoverishing his Farm, is a Question. But that it is impoverished, is true; and that he hath not or can procure Manure to mend his Land with, is as true; and by such Means he and his Family sink, and become chargeable to the Parish. The Landlord not only looses all his Rent, but is oblig'd to take his Farm into his Hand, in the ruinous Condition the Tenant has left it, and for want of a Supply of proper Manure is oblig'd to lay it down with Grass-feed, and by such daily Accidents, the necessary Quantity of arable Land is very much lessen'd.

And as it's generally agreed, that there is at this Time more Farms in the Hands of the Landlord than ever were known before, and that many more are daily falling into the like Circumstance of Impoverishment, for Want of proper Manure to improve the same: So likewise it more loudly calls for the Attention of the Legislature, to prevent the further lessening of  
the



the Quantity of Arable Land, and that immediately, otherwise it may soon be attended with very ruinous and destructive Consequences.

For it was ever justly observed by those dealing in Corn, that whenever the usual Quantity of arable Land is lessen'd, by laying it down with Grass-seed ; and any Accident happeneth to the Crop then growing, that then Corn riseth to an extravagant Price, &c. The Truth of which Observation was never more notorious, than in that memorable Year 1708 ; when the Price of Wheat rose from 3 s. *per Bush.* to 13 s. *per ditto*, in less than two Months Time, and all other Grain in Proportion : By which Means the Poor then suffer'd great Extremity, some died for Want, others liv'd on Grains, &c. being unable to purchase a Morsel of Bread, or other wholesome Food for themselves and Families. While great Part of the Bisket then made for the Navy and Merchant Ships was of Horse Beans, Peas, Brank, Barley, and a little Rye, instead of good Wheat as usual. The Quantity of arable Land was then lessened, and the Frost was so severe, that it was believed then that the greatest Part of the Corn in the Ground would be destroyed by its Severity ; and indeed great Part of it prov'd so ; for which Reason Corn continued dear for some Time after. If it so happen'd then what may be expected now ? when a much greater Proportion of arable Land is laid down already, and much more is daily expected to be turn'd into Grass Land for the Reasons aforementioned ; unless some effectual Means are immediately apply'd to prevent it. But as the most effectual Method to avoid such impending Evils and to obtain that most desirable Blessing of Plenty, is to improve our Lands with the aforesaid Manure : So for Such glorious Ends, are these Reasons humbly submitted to public Consideration.

And, That it will infallibly increase the Revenue, and greatly enrich the Subjects, by the aforesaid new Manufactory of Foul Salt, which Salt when fermented with other Ingredients, which are to be had in great Plenty  
in



in all Parts of *Great Britain*, makes the said Compound Manure, which amends and improves all Sorts of Lands for one fifth Part of the Expence it now costs in the common Methods of improving Lands, and causes the same to produce more than twice as much of all Sorts of Grain, Grass, Turnips, Hops, Flax, Hemp, Fruit, and Garden Wares, than is produc'd by Dung or any other Manure now in Use, and therefore the Consumption thereof will be exceeding great: In Regard that the Number of Acres of the Land of *Great Britain* hath been by the most Judicious, computed to amount to 63 Millions of Acres, consisting of the several Sorts of Lands, as follows.

In Woods, Forests, Commons, Roads, Waste-Lands, Rivers, Lakes, Ponds, Hedges, Ditches, Houses, and Church-Yards, &c.

8,000,000

In rich Pasture and Arable Land, which will be mended with the Farmers own Dung, &c.

25,000,000

The remaining Thirty Million of Acres, for which it is suppos'd, there is no Improvement but by this Compound Manure, and may be dress'd therewith, once in three Years

30,000,000

Total of Acres as above,

63,000,000

And whereas 10,000,000 of Acres will be to be mended every Year with this Manure, and will require about 80, 000,000 Bushels of this new manufactured Foul Salt, which at but Sixpence *per* Bushel Duty to the Crown will amount to about 2,000,000 *L. per Annum*, which will be paid with Chearfulness, because, that every Subject that pays towards it, will be a Gainer thereby of very near *Cent. per. Cent.* more, than if he was not to use the said Manure, nor pay the said Duty.

Therefore



Therefore the Demand for the same will be exceeding great.

Whereas the present Consumption of Salt for Provisions, &c. is about 2,000,000 Bushels *per Annum*, which at 3 s. and 4 d. *per* Bushel, amounts to about 333332 l. *per Annum*, but the Neat Produce is not above 180,000 l. *per Annum*.

And, by the aforesaid Calculation, it appears, that where one Bushel of Salt is now made and consumed, for Provisions, &c. There will be about Forty Bushels of this new manufactured Foul Salt, vended and consumed, in the making the said Manure for Land.

But should it be asked, how so great a Quantity as 80,000,000 Bushels of Manufactured Foul Salt, can be made in *Great Britain*, over and above what is now made for other Uses? The Answer is evident. For the Salt Springs at *Droitwich* alone, are more than sufficient for that Purpose. In Regard, it appears, by a moderate Computation, That where one Gallon of that Brine is made into Salt, more than Three Hundred Gallons run away in Waste. To these may be added, the vast Quantities of Rock Salt, and Brine in *Cheshire*, and all the many Salt-works for making Salt from Sea-Water only in many Parts on the Coasts of this Kingdom, which on this Occasion (will no doubt) be greatly enlarged.

This last Article, will be a Means of employing a great Number of Coasting Vessels, in carrying Coals to the Salt-Works, which will not only very much increase the Revenue on Coals, but the Number of Seamen likewise, and employ great Numbers of the Poor, in the several Branches, belonging to the Making this new Manufactur'd Foul Salt, and the Manure.

To which may also be added, the Number of Traders, who will employ large Sums of Money in this Affair, to their very great Advantage. Besides a much greater Number of Carriers, than is at present, will be employ'd in conveying this Foul Salt to the different  
Parts



Parts of the Kingdom, in the same Manner as Salt for other Uses is now convey'd.

And it very providentially happens, that *Droitwich* is situated near the Center of the Kingdom; and as we are begirt with Seas, and have the Advantage of many Navigable Rivers within Land, so the Carriage by Land to any one Part, cannot exceed twenty five Miles; an easy Journey, when it's consider'd, it needs not be often repeated, because one Carriage will bring as much Foul Salt as will make Manure for Eight Acres, at least the other Ingredients to be mixed with it, being to be had in their respective Neighbourhoods, as aforesaid.

Therefore, if the Farmers had Liberty and Directions given them, how to make and use the said Manure without Restraint, the Revenues wou'd be greatly increased, and the Subjects exceedingly enriched.

And Plenty being one of the greatest Blessings a Nation can enjoy, all reasonable Encouragement ought therefore to be given, to the Promoting thereof; and the only Method, with the Blessing of God to procure Plenty, is, to enrich and improve the Lands, as much as possible.

And that may be done at a very small Expence, if the Duty on such Foul Salt (as shall be boiled up with proper Ingredients, so as to render it impracticable to be apply'd to any other Use than for Manure) was not to exceed Sixpence *per Bushel*, and Satisfaction was given the Patentee for vacating His Majesty's Letters Patents, granted to him, for the sole Making and Vending his invented Compound Manure: To the End, that all His Majesty's Subjects may be at Liberty, and instructed in the Method to make and use the same, without Restraint, which they might then very easily do; for that the Materials for mixing with and fermenting the Salt, for making the said Manure, are to be had, in great Plenty, in all Parts of *Great Britain and Ireland, &c.*



And by this Means the Farmers will then supply themselves with such Manure, as from certain Experience and Observation, in many Parts of this Kingdom, hath been found to produce a much greater Increase of all Sorts of Grain, Grass, Turnips, Hemp, Flax, Hops, Fruit, and Garden Ware, than are produced in the common Method now used, and at a much less Expence, as aforesaid.

For, Manure being so very scarce and dear, that the present Expence, to mend an Acre of Land, is from three Pounds to four Pounds, and upwards, and there is not enough to be had, to mend one twentieth Part of the Lands, which want it; for which Reason there are several Millions of Acres in *Great Britain*, Part whereof lie uncultivated, and produce little or no Profit to the Owners thereof; and other Parts are so greatly impoverished, for Want of a sufficient Quantity of proper Manure, to dress and improve the same, that many of the Tenants are unable to hold their Farms, having lost all their Stock and Substance thereby, and are forced to leave them in their Landlords Hands, who can make but little thereof, for the Reasons aforesaid.

But if the Method for making this Compound Manure was made publick, and the Duty on such Foul Salt, as is used in making the same, was subject to such a small Duty, as aforesaid, then the Farmers will mend their Lands for twelve Shillings *per* Acre, at the most, and, in some Parts, for less.

For this Manure is so adapted to Vegetation, that it Enriches, Mends, and Improves all Sorts of Lands, and remains much longer in the Ground than any other Culture whatsoever, for it contains all the Vegetative, or Growing Principles of Nature, and for that Reason, it not only produces a much greater Increase, but every Thing in more Perfection, than what is produced by any other Manure.



And thus by Improving and Enriching Land, Plenty will be produced, by which the Poor will be enabled to work up the Manufactures of this Kingdom at so cheap a Rate, that the Merchants will be able to send the Produce thereof to foreign Markets, and afford them cheaper than any other Nation; and, by this Means, not only the Produce, Trade, Manufacture, and Commerce of *Great Britain*, will be greatly increased; but the Landlords will receive their Rents without any Abatements, or Loss by Tenants.

And although the Farmers will sell their Corn, and other Provisions cheaper, yet as they will have so great an Increase, at so very small an Expence; therefore they will be, thereby, much greater Gainers, and be enabled to pay their Rents with Ease.

These, and many more very great Advantages will accrue, not only to the Crown, but also to the Subjects in general, by having the small Duty on such Foul Salt, and publishing the Method for making of the Manure therewith, as aforefaid.

For, by this Means, an entire new Manufacture of Salt will be introduced into this Kingdom; and the Consumption thereof, will be exceeding great.

The Revenues to the Crown will be very much encreased; and Plenty, with the Blessing of God, will be produced.

The Subjects will be greatly Enriched, by the Increase of their Produce, Manufactures, Trade, and Commerce.

The Poor will not only be employed, but, by their Labour and Industry, will enjoy all the Comforts of Life, without being chargeable to the Parishes, or burthensome to their Friends.

Corn, will be one of the greatest Staple Trades of this Kingdom.

And, *Great Britain* will become the Granary of *Europe*.

*I am, S I R,*

*Your humble Servant.*





THE  
COMPLEAT SEEDSMAN'S  
Monthly Calendar.

S H E W I N G

The Best and most Easy

M E T H O D

For Raifing and Cultivating

Every Sort of S E E D

Belonging to a

Kitchen and Flower-Garden.

W I T H

Necessary INSTRUCTIONS for Sowing of  
BERRIES, MAST, and SEEDS, of *Ever Greens*,  
*Forest-Trees*, and such as are proper for *Im-*  
*proving of Land.*

By a G A R D E N E R.

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# A MONTHLY CALENDAR.



*Of Kitchen-Garden Seeds and Plants.*



SHALL begin with the PEASE, which make a large Catalogue, viz.

1. The Sugar Dwarf, with a rough rough Pod, which makes the smallest Plant of any Pea, lying flat on the Ground, and filled with Pods; they are of a homely Shape, containing large uneven Pease, which are extraordinary good when they are boiled, far exceeding any other Sort; but we must take care that the Birds do not devour them while they are green, which they are more inclined to than other Pease; and then, if the Close of the Summer chances to be wet, we can hardly dry the Seed, unless it grows upon a very light sandy Soil; for the whole Plant lies



flat upon the Ground. We should sow these not before the Beginning of *April*, because they are apt to rot in the Ground, like Kidney-Beans, with too much Wet. *N.B.* When we gather these Pease; we may take them in the Cods, and string them as one does Kidney-Beans, and slice them, Shells and all, and boil them, for they have no Skin within them like most other Pease.

2. The Green Rounceval is an excellent Pea for boiling, when the Pea is dry, and also when it is growing; it must be sown the End of *March*, or the beginning of *April*; and must be stick'd up, for it grows high. This Pea is the same which is eaten in *Holland*, Cods and all; and in some Places called the Guarmand, and Guarmandine; it has no Film or Skin in the Pods, so that they are used like Kidney Beans at the Table.

3. The Blue Rounceval is a good Winter-boiling Pea, and must have Sticks to run up, and be sown at the same time as the former.

4. *Knight's* \* forward Grey Pea, with a large Pod, may be sown early in the Spring, and the Pease boiled while they are young.

5. Crooked Sugar Pea, may be sown in the Spring, and is an excellent boiling Pea, while it is green.

6. *Flander's* Hot-spur, or *Master's* Hot-spur, is a good Pea to sow forward; that is as much as to say, to be sown in *October* or *November*, that the Pease may be fit to gather soon in the Summer.

7. *Knight's* large White Pea, must be sown in the Spring, about *February*; 'tis a good sort, and very good for Winter boiling: if it is stick'd up, it will bear more.

8. The Swiss Sugar Dwarf, is a mighty sweet Pea, while it is green; it will bear sowing in the Winter, for an early Crop, or may be sown in the Spring; it is a fine Pea for eating in the Summer.

\* *Mr. Hnight*, a curious Nursery-Man in *Bedfordshire*, a great Collector of Pease.



9. The *Bow-Dye-Pea*† is a very hardy Sort to stand the Winter; we may sow it in *November*, or in *February*, or *January*; scarce any Weather will hurt it.

10. The *Cobham Pea*, is a very good Sort for eating green in the Summer; we may sow it in *February* or *March*.

11. The *Pea* called *Puffins*, is a very good *Pea* to be eaten green in the Summer, and should be sown in *February* or in *March*.

12. *Supreme Amber Pea*, is a *Pea* for the Summer, and to be sown in *February* and *March*.

13. *Knight's Amber-Coloured Pea*, is an excellent *Pea* to be gathered green in Summer, and to be sown in *February* or *March*.

14. The *Dutch Amber Pea*, is a Sort that blossoms very near the Ground, and is a great Bearer; it is a good Summer green *Pea*, and is sown in *February* or *March*.

15. *Knight's large greenish Pea*, is to be sown in the Spring, and is good either to be eaten young, or to boil as Winter Pease.

16. The *Windsor Grey Pea*, is to be sown in *February* or *March*; this for boiling in the *Winter*.

17. *Knight's large Grey late Pea*, is to be sown early in the Spring, upon a light Soil; this is for *Winter* boiling.

18. The *Alabaster Pea*, is to be sown in *February* or *March*; these to be gathered green for Summer eating.

19. *Knight's large Grey Pea*, or *Grey Rounceval*, to be sown in *February* or *March*; this is good for *Winter* boiling, as well as to be eaten green in the Summer; it must be stuck up.

20. *Knight's round black-eyed Pea*, to be sown in the Spring, and will bear sticking up; 'tis for Summer eating, while it is young and green.

† *Stratford-le-Bow*, near *London*, a Place famous for Dying Scarlets.

21. Dwarf Pea, with a smooth Pod, to be sown in *March* or *April*, is a good Pea to be eaten green in Summer.

22. The Morott, or *Spanish* Moretto, is a large sweet Pea with a black Eye when it is ripe; this should be sown in *March* or *April*, in double Lines, a Foot asunder, and leaving 6 Feet space between the double Lines, that one may gather the Pease without breaking or bruising the Plants; when they are about 4 or 5 Inches above Ground, they must be sticked up: These Pease will last in gathering two Months.

23. The Pea called Redshanks, is a Pea that eats well green in the Summer; it may be sown in *February* or *March*.

24. The Maple Rounceval, or *Naples* Rounceval, is a very sweet Pea to be eaten green; it grows tall, and must be sticked up, and sown in *March* or *April*; it should be treated like the Moretto.

25. Marrow-Pease, are very good eating Pease when they are green in the Summer; they are to be sown in *February* and *March*, and some in the Beginning of *May*, for the late Crop; we sow these in Rows or Drills, like common Pease, the Rows at two Feet Distance.

26. The Egg Pea, is a large Pea, growing as large as the Rouncevals, and must be sticked up; it is a very good eating Pea green in the Summer, and must be sown when you sow the Maple Rounceval.

27. The Long Dwarf Pea; this Pea may be eaten green in the Summer; but tho' it is called a Dwarf, it takes as much Room as a common Pea: You must sow it in *February* and *March*.

28. *Knight's* White Pea, with a black Eye, by some called, The Forty day Pea, because they say, if you sow it in *May*, it will have Pease fit to gather in forty Days after they are come up; and it is a very forward Pea; besides, to sow it in *November*. it will come sooner than the other Pease; we may sow it also in *February*.

29. The



29. The Short Hots, or Short Hot-spur Pea, is a pretty good Pea to eat green in the Summer; it is one of the best Sorts to stand the Winter, or to be sown in *November*, to bring an early Crop.

30. The Rose Pea, or Crown Pea, brings a Bunch of Peasecods on the Top of the Plant, and no where else; you must sow it in *April*.

31. The White Rounceval Pea, is a good eating Pea, when it is green in the Summer, and is very large; you may sow it in *March* or *April*, and you may stick it up like the Moretto, or other Rouncevals, and it will bring a good Crop.

32. The Long Crooked Sugar Pea, is called the Glutton's Pea, and the Gourmandine; is eaten like Kidney Beans, Shells and all; it should be stuck up and sowed like the Moretto, or the Rouncevals, at a good Distance; it is a very sweet Pea, and you must sow it in *March* or *April*: This Sort is from *Flanders* and *France*, without a Case or Film in the Cods, so that it may be used like the first Sort, or be fried or broiled with Stakes, it gives a fine Relish to any Meat.

33. The Late Grey Pea, is good for Winter boiling, and must be sown in *February* or *March*.

34. *Reading's* Pea, will bear a little hard Weather, and you may sow it in *November*, or early in *January*, or in *February*, 'tis a good Pea to eat green in the Summer.

35. *Essex Reading's* Pea, is a very good Pea, to eat green in Summer, or to boil in Winter, you may sow it like the former.

36. The *Dutch* Admiral Pea, is a very large Pea, and must be stuck up like the Morettos and Rouncevals, and managed just as they are; you may sow them from *March* to the Beginning of *May*.

37. The Winged Pea I put here, because some People eat them when they are very young; but in my mind, they are not good; they have a faint Taste, only they bring a fine scarlet Blossom. I could put down among these



these the Sweet scented Pea, and the Everlasting Pea ; but I think it will be better to put them among the Flowers.

## Of B E A N S.

1. The *Spanish* Bean, is a small Bean but comes very forward and stands the Winter very well, if you sow it in *November* or *October*; it has its Cods in Clusters and bears very well. This Bean, if you sow it in *May*, for a latter Crop, will bear very full of Beans, a great deal more than any other Sort.

2. The *Portugal* Bean is a small Bean, but bears very well, and comes forward ; you must sow it in *November*, or about *Christmas*. It stands the Frost as well as the *Spanish* Bean, and tastes almost like it. I am apt to think it is the same.

3. The *Hot-spur* Bean, is a forward hardy Bean, to be sown like the *Spanish* Bean ; it will stand the Weather the best of any Bean, without growing black at the Shank ; but if you find the Weather coming on hard, take an Hough, and earth them up to the Leaves, and it will preserve them, and so you should earth up your forward Pease. All your Beans should be set in Lines with a Dibble, and your Lines two Feet asunder ; the Beans will stand thick enough at four Inches apart. This, tho' it is the most forward in the Market for our eating, is small, and only to please our Curiosity, is an early Bean ; they are, however, sold at a dear Rate, because we wish for the *Windsor* Bean.

4. The *Windsor* Bean, is called, The Broad Bean, and is the best of them all for eating ; one of them will make three of the *Spanish* Beans ; but it will not stand the Winter, so must be set in *February* or *March*, and when they are full in Blossom, must have just the Tops of the Stalks pinched off. Some Gardeners say, That, when they find all their Crops coming in together, they have cut down some of them to three Inches of the Root,



Root, and they have shot out again, and brought good Store of Beans at the End of the Summer. If you would have a late Crop, in my mind, 'tis the best way to set a Crop in *April* or *May*, and set them pretty wide afunder, or in a single Line, if you can, for then they will bear better; but the *Spanish* Beans do best to be planted for a Summer Crop, because they bear the most, only they don't eat so sweet.

5. The *Sandwich* Bean, is a very good Bean for a Summer Crop, but it won't bear the Winter; this Bean is pretty large and sweet, and a good Bearer: 'tis to be planted in *February* or in *March*, and will do pretty well for a late Crop; and then it may be steeped in Water for twelve Hours before planting, to keep it from the Fly, which else may chance to take it when it first comes up.

### Of KIDNEY-BEANS.

1. The Small, Speckled, Dwarf Kidney Bean, is one I brought from *Holland*, and gave the first to the late Mr. *Fairchild*, and called it his Bean; It is a good Bean to boil, with a smooth Coat, and brings its Beans under the Leaves without being perceived 'till you turn the Leaves up: Mr. *Beacon*, Nephew to Mr. *Fairchild*, now has it. It is a good eating Sort, and good Bearer, for the Bigness of the Plant; the whole Plant is scarce six Inches high, and never runs at all; you must sow it in *April*, when the Ground is not over wet; for Kidney Beans are very subject to rot in wet Weather; but this is yet very scarce. This is a good Bean, but a little rough on the Coat.

2. *Knight's* Small, Black, Dwarf, Kidney Bean, grows a little larger than the before-named, but bears very well and needs no Props; you must sow it in *April*, but not in rainy Weather, without your Ground is very sandy. This Sort is a little rough on its Coat.

3. The

3. The Deep Red, *Turkey*, Dwarf Kidney-Bean, grows to be a bigger Plant than either of the two that I have named, and is a prodigious Bearer, but never runs: You must set it, or sow it, in *April*, like the rest, and in the same Order, which is the Distance for all Dwarf Kidney-Beans.

4. The Bright Red, Dwarf Kidney-Bean, or *Turkey* Kidney-Bean, is a good Bean, and a very low Sort; but brings all its Crop almost at once: You must raise it like the rest that I have spoke of before.

5. The *Battersea* Dwarf Kidney-Bean, is an extraordinary Bearer, and will do without Props, but will run a little, if it is forced, or drawn in a hot Bed; you must sow it the beginning of *April*, like the rest; and if you would set any Kidney-Beans in hot Beds, for forcing early, this is the best Sort; because it brings a holding Crop. The true Sort of this Bean is broad and white.

6. *Knight's* large, white Kidney-Bean, a Dwarf, is a very good bearing kind, and comes forward; it is sowed upon light Ground; it eats as well as any Sort, and must be put into the Ground in *April*, at the Beginning, or we may try them the End of *March*; but take care of the Frost.

7. The Great Twining Kidney-Bean, is the Sort that lasts longest in bearing; but must be stick'd up as soon as they are six Inches high, and their Lines must be three Feet apart. I have heard say, that if you can keep these from the Frost, they will hold bearing two or three Years; but I have not tried it; but the Gardeners may do it, the Trouble won't be much; and if it does right, it will be worth while, because one may have Beans all the Winter. We must sow this Bean in the Beginning of *April*, and then it will come in about the End of *June*. This was the Sort that Mr. *Gardener* had at the *Temple*, where a great Bustle was made about it; but it has a coarse and rough Pod.



8. The Twining, Speckled Kidney-Bean, must be stick'd up with Sticks, about six Feet high, when they are stuck in the Ground; for they will grow very tall, as well as the other, and so must be sown like it, and at the same time in dry Ground. They eat very well; but if you would have a late Crop, sow some the End of *May*, and when you have open'd your Drills with an Hough, if the Weather be dry, water your Drills well before you lay in the Seed, and then cover them up.

9. The Common Twining White Kidney-Bean; this Sort we have almost at every Seedsman's: It is a small Bean to look at, but ramps as much as any of the Kidney-Beans that I have set down, and should have long Sticks; it should be set as wide as any that is gone before, and be sowed in the Beginning of *April*. Some of my Brother Gardeners use to sow these at the Back of their Cucumber Beds; but as soon as they begin to bear, the Plants must be pull'd up, or they will spoil the Cucumbers; for they will twist in among them, and choak them. I think that to sow some of this sort in Pots the Beginning of *June*, they would bear in a Greenhouse, if they were set in before the Frost begun.

10. The Great Yellow Twining Kidney-Bean; this will grow fifteen Feet high in Summer, if it has Poles long enough, and bears a good sort of Bean. It must have a good distance at sowing, for it will take a great deal of Room; but it is not every where to be had: It must be sown in the Beginning of *April*, in sandy light Ground. I have heard of several other Sorts, but I think here are enough to stock any Garden.

## LETTUCE, or LETTICE.

1. *Roman Lettuce*, is a good Cabbage Lettuce, to be sown in *February* or *March*, among any Crop, but Spinage; it must be sown loose, because if two Seeds come up together it won't Cabbage.

2. The



2. The Tennis-Ball Lettuce, is a black Seed, and you may sow it in *January*, if you can open the Ground; 'tis a very hardy Sort, and makes a small Cabbage, but very full; you may sow it thin among other Crops, or thinly upon a Bed, to be planted out when it is very small.

3. The *Lombard* Lettuce, is good for Sallads, and must be sown in the Spring, like the first. It is good for small Sallads.

4. The Marbled Lettuce, or *Aleppo* Lettuce, or Leopard Lettuce, for it has all these Names, is pretty to look at, because of the red Spots and Stripes in its Leaves; it will cabbage, and eats very well: You may sow it loosely among Spring Crops, or sow it on a Bed, and plant it out.

5. Green *Dutch* Lettuce, cabbages very well, and may be sown in *August* and *September*, to stand the Winter, and be planted out in Lines, to cabbage early in the Spring, and may be sown in the Spring among other Crops loosely.

6. The Brown *Dutch* Lettuce, is a very hardy Sort, and stands the Winter the best of any; therefore we may sow it in *August* or *September*, to be planted out, so as to be curl'd before *Winter*, and to bring early Cabbages; they are very sweet in Taste, and are esteem'd as much as any Sort. The Seeds of this may be sown in *July* to be half cabbaged in the Winter, so as to eat crisp with the Small Sallads.

7. Imperial Lettuce, is the largest Cabbage Lettuce of all, but does not run in to make so close a Cabbage as the Brown *Dutch*, but then it is crisp, and very well tasted: It may be sown in *February* or *March*, loosely, among Summer Crops, or on a common Bed to be planted out above a foot apart; but we must sow them thin, or they won't cabbage well.

8. The Royal Lettuce, has a curl'd, notch'd Leaf, like the Imperial, but it is smaller than the Imperial Lettuce, and cabbages like it in other respects, but in a  
wet



wet Season is fuller of Leaves ; 'tis very sweet, and must be sown and manag'd just like the Imperial ; we may sow them both every Month, from *February* to *September*, and some may chance to cabbage at *Christmas* ; 'tis hard to save Seed of the Imperial or Royal Lettuce, without taking a Knife and crossing them on the Top, when they are full cabbaged, for else the Seed-Stalk will not be able to get out ; but the Seed will not be good to be sown in the same Place above two Years, and not then so good as it should be.

9. The *Silesia* Lettuce, is an extraordinary Lettuce for one of the crisp Kinds, and sometimes comes very big folding something like the Royal and Imperial, and must be sown at the same Times, managed like them : This is much admired by most Gentlemen. The common way of eating these three last Sorts, is with Oyl and Vinegar, and only with them besides Nasturtium Flowers.

10. White Coss Lettuce, is admired by a great many, and is to be sown in the Months of *February* and *March*, and afterwards : It never cabbages, but brings its Leaves upright, and when 'tis grown as large as it will be, without running to Seed, you must tie the Leaves together, at least with two Bands of Bast Matt, and in a few Days the inner Leaves will be blanched, and fit for eating ; but 'tis too bitter without blanching : You must sow it very thin. This is generally eat without any other Sallad Herb with Oyl and Vinegar.

11. The Black and Green Coss Lettuce, must be managed like the white Sort ; you may sow it at any time of the Summer, loosely in Beds, or among low Crops, which do not last long ; this is a very sweet kind, if it be well blanch'd, and kept well water'd ; 'tis a very crisp Sort : The Seeds of these Coss Lettuce come from *Turkey* ; but if you save them in *England*, they must be shifted from one Ground to another, for they will not thrive in the same Ground where they are saved ; no more will any Seed.



In the Winter you may sow some of the worst of your Roman and *Dutch* Lettuce Seed upon old hot Beds, to cut while they are little, among the small Sallad Herbs.

12. The Lamb Lettuce, which is call'd, Corn Sallad, must be growing in a Garden, because it helps to make up a Sallad in Winter; sowing it in the Spring, or any of the Summer Months, and provide a good deal of it, if you use much Sallad in Winter. If you sow this promiscuously among other Crops, you will always find it in the Garden, for it soon runs to Seed, and sows itself.

### *Of Small SALLAD HERBS.*

1. Common Cresses, must be cut in the first Leaf, and sown in Drills in the Winter, under a Frame, and from *February* to *October* on Beds; you may sow some at *Autumn*, to stand the Winter abroad, for the Leaves will be very hot in a Sallad.

2. The Curl'd Cress, is as hot as the other, but has large curl'd Leaves, and makes a good Sallad; it may be sown just as you are directed to do the other sort of Cress.

3. Mustard, both the Black and the White, may be sown to be cut in the first Leaf, for the small Sallads; but the white Sort grows the quickest, so that in warm Weather when it is to cut, it won't last good a Week; but the black Sort grows slower, and so is the best for Summer, and the White to be sown in Winter; you may sow these like the Cresses.

4. Rape or Turnip, is another Seed to be sown for small Sallads, just after the same Manner as the Mustard, and will soon run in warm Weather, for when the rough Leaf comes, it is not fit for a nice Sallad.

5. Radish is sown to cut in the first Leaf, for small Sallads; it must be sown like the rest, as well in Summer



as in Winter ; but if you sow it for the Root sake, the Ground must be well dug, and you must sow the Seed thin about *February*, *March*, or *April*, and in about forty Days they will be fit to draw, or you may sow some at *Michaelmas*, to stand the Winter, to come early ; the *Spanish Radish* is the hardiest, and the *London Radish* and *Sandwich Radish* will do well for *Spring* sowing, when you may sow them thin among Onions, or such sort of Crops, for they will be soon off.

6. Hartshorn, or Creeping Buckshorn, was a long Time ago made a Sallad Herb, and now is in all the Seeds-mens Bills, tho' it is seldom in the Gardens: Those that like it may sow it in *March*, and they may quickly have enough on't.

7. Garden Rocket, is a very hot Sallad Herb, to be eaten while it is young and tender ; this may be sown with the other small Sallad Herbs at any Season ; but 'tis not very common in our Gardens.

8. Chervil, is an Herb that some People use among the small Sallad Herbs ; a little of it goes a great way ; but it is more commonly used in Soops ; you need not sow this above twice or thrice in a Year ; that is, in the Spring, and about *May*, and in *Autumn*, to stand the Winter.

9. Spinage, either the round or the pickly Sort, should be sown as the other Small Sallad-Herbs, to be cut in the first Leaf ; but besides, you must sow it often, to stand for boiling, that is, in *February*, *March*, *April* and *May*, and also in *August* and *September* ; the last to stand the Winter, to be pick'd Leaf by Leaf. House-Lamb does not genteely come to Table without it.

10. Purslane, either the green or golden Sort, must be sown to eat with the small Sallad Herbs of the Spring ; and in the Summer with Cabbage Lettuce and Nasturtium Flowers. If you sow it before *April*, you must sow it upon a hot Bed. The Stalks of this, when large, are a pretty Pickle.



11. Sorrel either the *French* or the red Sort, may be sown in the Spring, for standing; some People eat it when it is young, mix'd with the small Sallads Herbs; but it is commonly used in Soops and Sauces; there is one Sort of Sorrel which very seldom runs to Seed, which you may part and divide in the Spring.

12. Taragon, is an old Herb, which many People use with the small Sallad Herbs; but it has a very strong Taste, and a very little will give a Taste to a great Sallad; you must part the Roots of it in *March*.

13. Curl'd Endive, is the best Sort of Endive, and is what we use in the Garden after it is blanched, but without blanching it is too bitter; it is commonly used in the Winter Sallads, when there is no Cabbage Lettuce to be had; you must sow it for that Use in *September*, and plant it out when it has got two or three Leaves, and when it is grown large, tie the Leaves up together, and in a Fortnight it will blanch; one may sow some in the Spring, but there is no want of Sallad Herbs in the Summer.

14. Sellery, is for the Winter Sallads, because it very hot, but it is a long Time growing, and it must be sown in *February* or *March*, upon an old hot Bed, and prick'd out when it has got three or four Leaves, and about *June* or *July* plant it in Trenches, and when it is grown pretty large, earth it up by little and little, 'till the Earth reaches near the Top of the Plants, and it will be soon White, or you may sow some in *May*, to come late in the Winter, or early in the Spring.

15. Sweet Fennel, or *Fuiocchi*, when it is blanched, is eaten by some People that have been abroad, and, I have heard say, is a very good Sallad: You must sow it in *March*, and plant it out while the Plants are small, and after that, when they are about six Inches high, plant them in Trenches, and earth them up for blanching, as you would do Sellery.

16. Common Fennel, is eaten both raw and boyl'd, and is only a Sallad for Fish, such as Salmon or Mackerel:  
it



it must be sown in *March* or *April*, and will last a good while ; this should always be in a Garden.

The Roots of Red Beets boil'd and eaten sometimes with Sallads in Winter, and Horse Radish Rooots scraped, and the Flowers of *Nasturtium Indicum*, are used in Summer ; but I shall tell how to raise them in another Place.

ROOTS and SALLADS for boiling, and to be used in the Kitchen.

1. Orange Carrot, is to be sown in *February* and *March*, in Ground well dug and light, and must be hough'd, so that two may not grow close together ; for if they do, they will not root as they should do. You may sow some in *August* to stand the Winter, and serve to draw soon in the Spring : There is a White Carrot that may be sown in the Spring with the Orange Carrot.

2. The Red or Purple Carrot is the best, and must be sown like the other Carrot. Tho' the Carrot is said to be a nourishing Root, it is remarkable, that it never digests, but passes thro' the Body in every Respects as it was received into the Stomach.

3. The Parsnip is a very good Root to be boiled in the Winter, and it must be sown in *February* or *March* at farthest ; for it's a long time a growing, and it must be houghed like a Carrot.

4. The Round and long Turnep, and the Yellow Turnep, must all be sown about the End of *June*, for to bring good Roots in the Winter ; but they must be sown thin, and be hough'd when they have got three or four Leaves ; to stand every one single, or they will not thrive. You may also sow some in the same manner in the Spring, to have a few in the Summer.

5. The Red Beet Root, when it is boiled, eats very well with Vinegar after it's cold, and is often sliced into Sallads in the Winter. You must sow it in the Spring



about the Beginning of *March*. The White Beet makes a large Root ; but the Leaves only are used to boil in Soups, and sometimes in Sallads : You must sow it when you sow the Red Beet. Break the Seed-pods of both these when you sow them, or else they will come up double, and one Plant spoil the Rooting of the others.

6. Skirret is a small Root when it is boyled, and must be sown in *February* and *March*, or else we may part the Roots then, and plant them in very fine Mould, otherwise the Roots will be very small. These boyl'd and served with Sugar, Butter, and Sack, make a fine Dish.

7. Scorzonera, is a Root which some like when it is boyl'd, and must be sown in *February* or *March*, in ligh Ground, to make the Root large. These Roots are to be boyled and treated like the Skirret.

8. Salsifie, a Root which some People eat when 'tis boyl'd ; which you may sow in *February* and *March*, in Ground that has been well dug.

9. *Jerusalem* Artichoke, is a Root fit to be eat about *Christmas*, when it is boyl'd : You must encrease it by dividing the Roots in *January* or *February*. Any Ground will serve for it. It tastes like the Bottom of an Artichoke, and is eaten with Butter, Pepper and Salt like it.

10. The Potatõe, both the White and Red, are very good Roots for boyling all the Winter long ; you must raise a Crop out of the small knobbed Roots to be put in the Ground in *January* or *February* at the farthest ; But let the Ground be well dug.

11. Horse Radish is a Root to be scraped for Sauces when it is raw. You must encrease it by digging the Ground deep, and sowing the most knobbed Bits of the Roots, about *September* or *February*. This is used, when 'tis scraped, as a Garnish to Roasted Flesh, and all sorts of Fish.

12. The Rampion is a very good Root to be boyl'd and eaten with Oil and Vinegar, or Salt, when 'tis cold ;  
but



but it is in few Gardens: 'Tis none of the largest Roots, but is thought to be pleasant. We must sow it every Year, for it runs to Seed the second Year, and then is not good. The Time of sowing is in *March*, and the Root will be fit for eating the Winter following.

13. Allifanders, or Alexanders, are by some People used as a Sallad both raw and boyl'd, that part of the Root next the Leaves, and the Leaves with it; but the lower part of the Root is not so tender, and therefore rejected: But this must be eaten before it runs to Seed. You must sow it in *March*; 'tis but in few Gardens.

14. The *Strasburgh* Onion must be sown in *February* or *March* for a Crop, to be hough'd when they are three Inches high, that two may not grow close together; for if they do, they will not have good Roots. This sort will keep in the dry Root longer than any Onion.

15. The *Spanish* Onion is much the sweetest Onion of any, but is apt to shoot in the House, it must be sown just like the other, and hough'd, and you may sow some a little before *Michaelmas* to draw young Onions in the Winter; but in this and the other, there must be special Care to dry them well before we lay them up. You may plant both these Sorts of Onions in *January*. If you have a mind to save Seed from them, plant out some to have them large.

16. The *Welch* Onion is a Sort that brings Off-sets about the Root; you may sow it in *March* or in *September*, to draw in the Winter.

17. Eschalots, or Shalots, are to be raised by the Root; for they increase plentifully: We must plant the Roots single in *January*, and take them up after the green Tops are withered, and so dry them. One of these will give a better Relish to a Sauce than an Onion.



18. Rockambole is a Root, tho' it grows upon a Plant, and mightily in Request; you must increase it by setting the Rockamboles in *January* or *February*, the latest, and gather them when the Stalk is turn'd Yellow in dry Weather. One of these will give Flavour to any Sauce if you rub a Plate with it.

19. Garlick is the strongest Root of all among Onions, and must be encreased by setting the Roots single in *January* and *February*, and may be taken up when the Leaves and Stalks are dry, or turn'd Yellow.

20. Chives, or Syves, are only used in the green Tops, which are cut off to serve as young Onions; but their Roots may be always in the Ground: The way to encrease them, is to divide the Roots very early in the Spring, or in *July* or *August*.

### *The COLE, in its several Sorts.*

1. The Cauly-flower, or Colly-flower, or Cole-flower, is look'd upon to be the most worth of all this Kind; it must be raised by the Seed in Spring, and prick'd out when it has three or four Leaves, and when it is above five Inches high, plant it out for good, and give every Plant a great deal of Water; so in the Middle of *July* sow some more to be prick'd out for standing the Winter; but they must be under some Cover, either Bell Glasses, or Frames and Glasses, or else they will be apt to go off by the Frosts, and you will have good Flowers in *May*.

2. The Sugar Loaf Cabbage, is an early Cabbage, which is brought first to Market; we must sow the Seeds in the Middle of *July*, and prick them out like the Colly-flower, to stand the Winter; and if the Ground be open in *January*, plant them out for good, and keep them watering well in *March* and *April*, they will come the beginning of *June*, nay even in *May* we have some of them.

3. The



3. The *Battersea* Cabbage, is a very good early Sort, and must be raised just like the Sugar-Loaf Cabbage: It comes in much about the same Time, but is larger.

4. The *Russia* Cabbage, is very sweet in eating, but is the smallest of all. It is very hardy, and may be sown in *July*, to stand the Winter, as well as in *March*, to make a Cabbage for the Winter; we may also sow the other Cabbages in *March*, to make Winter Cabbages; but you must shade them when they are prick'd out, and water them well.

5. The *Dutch* Cabbage, is one of the largest Cabbages we have, and does very well for a Winter Cabbage, and so must be sown in *February* or *March*, and managed like the former: This brings Sprouts when the Cabbage is cut, that are like little Cabbages, and exceeding all other Sprouts in Sweetness.

6. The Red Cabbage, is very seldom used, but for garnishing of Dishes and Pickling, because of its Colour, which is a very deep Red. You must sow it in *February* or *March*, and prick it out as the other Cabbages, to be afterwards planted to cabbage in the Winter. All these Cabbages, if we have a Mind to get Seeds from them, you must take up the whole Plant in *January*, and when you have trimm'd off the loose Leaves, set it in the Ground so deep, that only the Top of the Cabbage may be seen, and the Flower-Stalk will come strong, and give good Seed.

7. The *Savoy* Cabbage, both the white and green Sort, must be sown in the Spring, and prick'd out to stand till they are fit to plant out for good; they will be fit to cut in the Winter, when they have large Heads, and Cabbages are gone. They are very sweet eating.

8. The Colewort, or wild Cole, never makes an Head or Cabbage, but brings large Leaves, that are very sweet when they are boiled. You must sow them in *June* or *July*, to stand the Winter, and they will be fit to eat in the Spring.

9. Curl'd



## *A Monthly Calendar.*

9. Curl'd Coleworts, or Curl'd Worts, is a Sorr of Cole with jagged cut Leaves, strip'd with many Colours; it serves to garnish Dishes, but is never boil'd or eaten, that ever I heard of. You must sow them in *March*, and prick them out as you do Cabbage Plants. When you plant them out, they must stand two Feet asunder.

10. Cole Rape, or Cole Turnep, is rais'd in some Gardens, and the Turnep-like part boil'd and eaten; this Plant has a large Bunch or Knob as big as a large Turnep, just above Ground, and upon that grow Leaves like Coleworts, which are also good to eat when they are young. You must sow it in *February* or *March*. When you boil this Turnep-like part, pare it first as you would do a Turnep, and if it is very large slit it in two.

## PLANTS of Use in the Kitchen.

1. The Artichoke, must be encreased by Off-sets, planted in the Spring, two Feet asunder, and the Ground must be very rich and fine, and these young Plants will bear Artichokes at *Michaelmas*, and make strong Plants for another Year, to bear in *June*: You may also raise them from Seeds if you sow them in *April*. Cut these always with long Stalks, that you may break them from the Choaks, and thereby free the Heads from the Strings, which a Knife will not do.

2. *Spanish Cardoon*, or Chardone, grows something like the Artichoke, but the Head of the Flowers is not fit to eat; those that use this Plant, use only the Ribs of the Leaves blanched, after they have pull'd out the Strings, and boil'd the rest till they are a little tender, and then fry them: You must sow it in the Beginning of *March*, and plant it out when it has made two or three Leaves, and two Feet apart, in Lines; and as soon



soon as the Leaves are grown about three Feet high, tye them up with Bafs or Hay-bands, and lay Earth up about them, and in three Weeks they will be blanched fit for use ; you must then cut them in the Root, leaving the Knob of the upper part of the Root, and all being well washed with a Brush, the Leaves must be stripp'd of their Strings, and cut into Lengths about six Inches.

3. Asparagus must be sown in *March*, and the following *March*, must be planted about ten Inches apart, upon good rich Land, and so be let stand till the third Spring, without cutting any while they are in the Bud ; for it destroys the Circulation of Sap between the Stalk and the Roots, which will make the young Shoots small, if you cut any while the Plant is growing ; but in three Years they will be strong enough to begin to cut ; but we must, in the Beginning of *June*, let it run to bear Seed, and not cut down the Hawlm or Stalks, till *November*, and then dig up the Alleys, and fling up some of the Earth upon Beds. You may take up a Parcel of good Roots in *November*, and plant them on an hot Bed to come at *Christmas*.

4. The Cucumbers may be rais'd two ways, both upon hot Beds, and upon the natural Ground ; if you sow 'em upon hot Beds, you may put in the Seed the beginning of *February*, and must prick them out when their Ear-leaves are open'd, and when they are in their first great Leaf, plant them out in a fresh hot Bed, five Plants in a Hole ; and if you sow them in the natural Ground, only stir the Earth a little, and sow a few Seeds in an Hole, without any Dung, in the first Week in *May*, and they will bring very good Fruit, without any Trouble ; but it will be best to let them have some Bushes to run up, and they will hold fruiting a long Time, if they are of a prickly cluster Sort of Cucumbers.

5. The Melon is not so hard to raise, as most People think for ; you may sow it in an hot Bed the beginning of *February*, and must prick it out like the Cucumber, and



and when your Plants have got a great Leaf, plant them out upon a fresh hot Bed, under Frames and Glasses, three or four Plants in an Hole, and let your Plants run, without cutting off the false Blossoms, for they help to set the Fruit; and if the Plants are not much disturb'd with Pruning, you may have a good Crop: Or else you may sow some Melon-feed in *March*, upon a hot Bed, and when they are fit to plant out, set them under a South Wall, and keep them cover'd with Bell Glasses, till the Frosts are over, and leading them to run up against the Wall, you will have good ripe Fruit in Plenty, for it's the Nature of a Melon and Cucumber to run up whatever they can catch hold of, as one might know by their Claspers, if there had not been Experience of it; the Heat of the Wall will ripen the Fruit. There are several Sorts of Melons and Cucumbers, but the *French* Melons, and the *Russia* Melons, bear the best in the *English* Gardens; the *Italian* Melons run into Vine, and don't bear well: And for Cucumbers, there is the *Turkey* Cucumber, a very large Fruit, but an indifferent Bearer, and the long and short prickly Cucumbers; the short Sort is early, but not near so early as the early cluster Cucumber.

6. The Gourd; there is a Sort of it with Fruit a Yard long, and several Sorts with Fruit that are like Bottles, some big enough to hold a Gallon, and with little Fruit that will not hold a quarter of a Pint; some bear round Fruit, like Oranges, and others of other Shapes. They are all very rambling, and must be planted where they can run up Props; but you must sow them on a hot Bed, the End of *March*, and not let them be planted in the open Ground, till the Middle of *May*, and you may expect a good Parcel of ripe Fruit, chiefly if you plant them under a South Wall.

7. The Pompion or Pumkin, must be rais'd just like the Gourd, and need not have any Dung, when you plant it out for good. The Fruit of this will keep all Winter, and the fleshly Part being cut and baked with some  
Sugar,



Sugar, eats very well ; sometimes Apples are mixt with it, and gives the Apples a good Flavour.

*Pot-Herbs, and Herbs used for Distilling, &c.*

1. Parsley, is of two Sorts, the common and the Curl'd, but they both answer the same End in the Kitchen : It must be sown in *February*, or *March*, or in *April* it will do ; or against Winter, sow it in *August* ; you must keep it cut down, and it will shoot afresh, for the Nicety of it is to have it young, and one should have a great deal of it ; for it is the most common Herb in use : You may sow it in Beds, or in Edgings. I am told, that the People in *Holland* boil the Roots of it, and eat it as a good Dish. The large Leaves are very good boil'd as a Green, such as Spinage, &c.

2. Succory is used to be eaten in Sallads, as well as Endive, either green Leaves, or after it has been bury'd in Sand for a while to whiten, which helps to take off the Bitterness ; but it is different from Endive, in that the Succory will last several Years, and Endive lasts but one Year. You must sow it in *March*.

3. Borage, is to be sown every Year in *March*, and in *Autumn* ; the Leaves, while they are tender, are used in Broths ; and the Flower-Stalks in cool Tankards ; the Flowers are good in Sallads.

4. Bugloss, is a Plant, whose Leaves are chiefly used in Broths ; it remains a long Time in the Garden, and may be sown in the Spring or *Autumn* : It bears a pleasant blue Flower, which with the Buds, that are reddish Purple, make a pretty Show. This is now pretty much out of Fashion, tho' a wholesome Plant.

5. Burnet, is a good Plant for Sallads, to cut the young tender Leaves with the small Herbs ; for it gives a Sallad a Taste as if there were Cucumbers in it ; and the Flowers-Stalks are used in cool Tankards, with Borage ; You may raise it from Seeds in *March*, or you may transplant



transplant the Roots then or in *Autumn*; but when the Leaves are large and hard, you should cut them off, and you will find the Plants will spring afresh.

6. Clary, the Leaves of it are used in Amlets, made with Eggs, and so must be in a Garden: You must sow it in *March*, and should use only the young Leaves. The Leaves must be shred small, and beat up with Eggs, and some Pepper and Salt, and some use Onion shred with them.

7. The Marygold; the best Sort of it is the double *Dutch* Marygold, which should be sown in *March*, and it will blow a long Time; as the Flowers blow, they must be gather'd, and the Flower Leaves pick'd clean from the Stalks, and dry'd in the Shade, in a Place where there is no Dust, and then put in Paper Bags, to be kept dry for use. This is a mighty Flower for Pottage, used in every County in *England*, and, next to Saffron, is accounted a Cordial; abundance of Marygold-leaves are used to mix with Saffron.

8. Pot Marjoram, is a sweet Herb, that lasts several Years, and must be raised from Slips, to be planted in *March*, or by dividing the Roots; but this Herb, in frosty Weather, is not sweet, so that you should have some Summer sweet Marjoram dry'd, to use in the Winter. The Power of the Sweet Marjoram is good in Soups, and in Gravies, or Savory Sauces; and when the Pot Marjoram is in its Prime, shred it, and put it into your Soup.

9. Dill, is used in pickling of Cucumbers, and for nothing else in the Kitchen, as I know of: You must sow it in *March*, and it will be fit for your Use in *July*, when you may gather the fairest Cucumbers for Pickling.

10. Summer Sweet Marjoram must be sown in *April*, and must be pull'd up, and dry'd, in the Shade, about the End of Summer, and kept in Bags of Paper in a dry Place.

11. Mynt, the young Tops are good in Sallads, and boil'd for many Sauces, and Distilling: You should also  
cut



cut some when it is young, and dry it as you do Sweet Marjoram, for Winter use; for then you have no green Mynt but what grows upon hot Beds. You must raise it, by dividing the Roots in *February*.

12. Summer Savory, is to be raised from Seed in *April*.

13. Winter Savory, is a common Pot-herb, to be raised by Slips in *March*, and may be planted in Edgings; it has been much used in the Kitchen, but now is seldom brought there.

14. Thyme must be raised, either by the Seeds sown in *April*, or by Slips in *February* or *March*: There are many Sorts of it, as the Mother Thyme, Lemon Thyme, Orange Thyme, and some Sorts striped: All of them may be raised by Slips in *March*; but none are used in the Kitchen, but the common Pot Thyme.

15. Nepp, or Mountain Mynt, is used by some, to give an high Relish in Sauces; it must be encreased by parting the Roots in *March*.

16. Tansey, is sometimes used in the Kitchen tho' a very bitter Plant: You may encrease it, by dividing the Roots in *March*, or in *Autumn*. The young Tops early in the Spring may be press'd, and a very little of their Juice, mixt with the Juice of Spinage, will make a Tansey.

17. Hyssop, is a useful Plant, frequently ask'd for in a Family. It lasts several Years, and may be raised by Seeds sown in *March*, or by Slips in the same Month. It makes a good Edging.

18. Balm, is a good Herb, used sometimes in cool Tankards, and for Distilling: You must increase it, by parting the Roots in *March*, and in *Autumn*.

19. Sage is of a great many Sorts; but you must be sure to have two or three of them in the Garden; that is the red Sage for the Kitchen, and the Sage of Virtue and the Wormwood Sage, for Tea, and to dry. You may raise them all by setting the Slips in *March* and *April*; the best in wet Weather. When you cut Sage to dry,  
you



you must cut the young Shoots, in a dry Day, and dry them in the Shade, and keep them in Paper Bags.

20. Sweet Basil, is of many Sorts, and to be raised every Year from Seeds sown in *March*, in hot Beds. Some have one Scent, and some another, but all of them very pleasant; and they are used by some *French* Cooks, to make rich Sauces. You may dry some for the Winter. Abundance of the Bush Basil is used in Snuff.

21. Rosemary, is often in use in a Family, and must be raised by Slips in *April*.

22. Lavender is used dry, and to be distill'd ; and one should have a Bed of it. You must raise it by Slips in *April*. The Flower Stalks lay'd among Linen, give it a grateful Smell. You must cut them the End of *May*.

23. Columbine ; the Leaves of this are used by some People to boil in Broths; so that one should sow some in *March*, on purpose for the Use of the Kitchen.

24. Rue is an Herb often called for, and used in Distilling, and must be raised by Slips, planted in *March* or *April*.

25. Wormwood is used in Distilling, and must be raised by Seeds in *March*, in which Month you may transplant the Roots.

26. Smallage, is used in Soups and Broths : You must sow a Bed of it in *March*.

27. Leeks are mightily used in the Kitchen for Broths and Sauces, and must be raised by Seeds sown in *March*, and planted out in *June*, to stand for Winter Use. The White Part should only be used.

28. Scurvy-grass, is used by many, and must be sown in *March*, in a shady Place. 'Tis to be bruised in the Spring, and put in Ale, or Small-beer, and the drink is said to be good against the Scurvy.

29. Angelica, is an excellent Herb for Distilling, and in a Sweet-meat ; you may raise it from Seeds in *March*, sowing them in some shady Place ; the Roots will



will stand a long while, if, by cutting it often down, you keep the Plant from running to Seed; you may likewise plant out young Plants in the Spring, and in the *Autumn*, and likewise sow it in the *Autumn*.

30. The *Carduus Benedictus*, should be sown every Spring, in *March*, for it is of Use in Distilling, and of other Service in a Family; a little Bed of it is enough; but some should be dry'd when it is going to Seed, to give in Tea as an Emetic.

31. The Male and Female *Pæony*, should also be in a Kitchen Garden; for they are often asked for in great Families: They must be increased by dividing the Roots in *February*.

32. *Pennyroyal*, is also a Plant much used in most Families, and must be set of Slips in *March*, in some shady Part of a Garden. Those who make Hoggs-puddings will not be without it, and the distilled Water of it is very useful in Womens Cases.

33. *Cammomile*, was usually planted upon Banks, or in the Walks of a Garden: 'Tis a very bitter Herb, and must be raised by planting the Slips in *March*, or in *August*: The double Blossom Sort is the best.

34. *Liquoris*, is a Root of Use, and may be planted in a light Earth, of little Bits of the Root that are knobbed, in *February* or *March*; but it must stand till the third Year, before it be taken up, and then it will bring a good Crop. An Acre of this, well grown, is worth Sixty Pounds at least.

35. *Saffron*, is a very useful Plant, as well as pleasant in its Flower; it is increased by planting its bulbous Roots in *July*; and in the third Year, it will be in Perfection; but will bear a good Quantity of Flowers the second Year. This is worth from thirty Shillings to five Pounds a Pound sometimes.

36. *Tobacco*, as a Sort of Rarity, and to make Salve, may be raised in a little Quantity, by sowing the Seed, either upon an old hot Bed in *February*, or in the natural Ground in *March*, and planted out when it has got three  
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Leaves;

Leaves ; if you would dry any of it, gather the Leaves full grown, and tye them in Bunches, and dry them in the Shade.

37. The Mushroom and Champignon, ought to be in every Garden ; the Manner of making the Beds for them may be found in Mr. *Bradley's* Books ; and I have with making some Experiments, had them in my Garden all the Year round, having provided some of the best Seed, and made a great many Improvements, so that I can even make the Seed grow any where, without a Bed as I have shewn to several Persons.

Thus have I given Directions for all the Plants necessary to be raised for the Kitchen Garden, except the Nasturtium Indicum, or *Indian Cress* ; and that is so fine a Flower, that one may well enough put it in the Flower Garden ; but it is a ramping Plant, and the Flowers of both the great and the little Sort, are very good to be eat in Sallads in the Summer ; so I shall speak of it here, and you may place it where you please ; the little Sort is the most used in Sallads ; but there are some Gentlemen will eat the great Kinds, rather than the small Sort ; I mean the Flowers, which are very warm, especially with Cabbage-Lettuce ; you must raise them both from Seeds sown in the Beginning of *April* in the natural Ground, or else as I have done, raise them in the Autumn, and keep them under Cover in the Winter, and they will blow early in the next Spring ; but I never knew any-body practise this, 'till I did it myself, and since that, several have done it, as well as raising other fine Annuals in Autumn.





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FLOWER-SEEDS *and* PLANTS.

**W**E shall begin with LASTING FLOWERS, as,  
 1. The Carnation, or July-flower, may be raised from Seeds sown in *April*, if you have a mind to try for Varieties; or if you would increase the Sorts you have already, that must be done by Layers, as soon as the Off-sets are big enough to be lay'd: If you raise them from Seed, save the Seed of the best Flowers, and you will certainly find some good ones come among them: in laying of these Flowers, you must make the Earth very fine, and let not the Layers want Water, and in about six Weeks time they will have struck Root; in *September* take them up and pot 'em or plant them in Beds for blowing; for to plant them in the Spring is not so well; they will blow stronger by Autumn planting: Their Season of blowing is in *July* and *August*.

2. The Auricula, is another Flower that lasts and is very much admired when it is striped; the Earth for it must be light, and you must take off the Off-sets either when it is in Flower, or the Middle of *July*; and to have them blow well, they must be cover'd in the Spring with Mats, from the Rain, else that will wash off the fine Dust, which gives them the chief of their Colours. There are many hundred Sorts of this Flower, as well as the Carnation; so that a List of either will take up too much Room. If you will raise Varieties of Auriculas, you must sow the Seed in fine Earth, very shallow, in *August* or *September*, and keep it well water'd till it comes up, and cover'd from the Frosts;

or else sow it in *February*, in a Box of fine Earth, and, if the Weather is dry, cover it with a little Chickweed, till you find it come up; and don't neglect to water it. Plant out your seedling Plants at *Midsummer*, and shade them for a Fortnight. Those Flowers that come plain, make a good Show in an open Bed; and I have seen some plain Flowers brought from *Holland*, that have been sold for a great Price. Those Flowers which are striped, and richly cover'd with a dusty Meal, are call'd, Painted Ladies; these blow in *April*, and some in *August* and *September*.

3. The Polyanthos is a Flower next to the Auricula for Beauty, and blows much in the same Manner; but it will bear the Rain, without losing its Colours. Some Polyanthos have their Flowers enclos'd in Husks, with green Leaves about them, which are call'd Pantaloons, and some have one Flower set in another, and call'd Hose in Hose, and others have the Husk that the Flower grows in split to Pieces, and finely colour'd, and the Flowers split likewise, which are call'd Shags, Feathers, and scatter'd Polyanthos. They generally blow from the Beginning of *January*, if the Weather is not very frosty, to the End of *April*, and very often all the Winter long; you must raise them from Seed, like the Auricula, and plant them in common Beds, in the Shade; they are also encreas'd by parting the Roots, in *July* or *August*, or while they are in Flower, in the Spring.

4. The Pink is a very sweet and fine Flower, having a great many Varieties, some single, mark'd finely with Red in the Middle, call'd *Pheasant-ey'd* Pink, one sort as large as a Carnation, and double, with the *Pheasant-eye* in the Middle, with short Stalks; another very short call'd, The Dwarf double white *Dutch* Pink; some also call'd, The Maidens Blush, or Painted Lady Pink; another double red Pink, and one a striped Sort, call'd, the Old Man's-head Pink, which blows all the Winter, if it be shelter'd in a Green-house; and the  
*China*



*China* Pink, which is a very fine Sort, and brings Flowers finely mark'd in the Middle, and of many Colours; and the *Rochester* Pink is a very good Sort for making Edgings, blowing full and short. We may raise all these, if they bear Seed, by sowing them in *March*, but they will not blow till the second Year, unless it be the *China* Pink, which blows the same Summer; and you may encrease all these by making Layers of them, as of Carnations. These, most of them, blow a Month sooner than the Carnations, and hold a long while.

5. The Sweet William, is next to the Pink or Carnation, for we have several Varieties that are produced between these Sorts, that have Leaves like Sweet Williams, and Flowers of Pinks and Carnations, and were raised from Carnation Seeds, that had been impregnated by Sweet Williams; some of these Plants are call'd, Double Sweet Williams, but as long as they came from Carnation Seeds, they have as much to do with the Carnation as the Sweet William, and so may be call'd which of the two one will: But Mr. *Bradley* calls them Mules, because they are rais'd between two Flowers of different kinds: You may encrease them by laying the Off-shoots, as you would do Carnations, or else by setting Slips or Cuttings in the Summer; so you may also propagate the Sweet Williams by Layers or Cuttings, or sow them in *March*, and they will blow the second Year: You may also transplant them in the Spring, and at Autumn. These begin to blow before the Carnations, but last in Flower as long as them, and make good Flowers for Borders, as well as for Pots.

6. Thrift, is a lasting Plant, fit for Edgings; the best is the Scarlet Thrift, which brings the finest Flower; but the most common pale-colour'd Thrift makes a fine Show, and so does the white Thrift, but that is very scarce; it is commonly planted for Edgings, by dividing the Roots in the Spring, and in the Autumn.

7. The Tulip is a wonderful fine Flower, that brings great Varieties, both from Seeds, and from plain



Tulips, which are call'd Breeders: This is one of the bulbous Roots, which should be taken out of the Ground, as soon as ever the Stalks are quite withered, and then dry'd well, and laid up till the Beginning of *August*, and then planted in fine fresh Earth; but I say this of the finest Sorts, where you would keep the Stripes; for the more common Sort may stay in the Ground three Years, to make the more Increase: Some chuse to keep these Tulip Roots out of the Ground till *October*; but, in my Mind, the less Time they are kept out of the Ground, the stronger they will blow; but yet, I have known some put in the Ground in *November*, that have done pretty well, but they were of the latest Sorts. You should mind to put all the forward Sorts into the Ground, sooner than the late Sorts; for some will begin to shew the Flower in *January*; and these should be set in a Bed by themselves, as well as the late ones, that every Bed may be full blown in its right Time. Never cut down the Stalks of the Tulips while they are green, nor crop off the Seed-pods till they are ripe; for it hinders the Circulation, and weakens the Root, which feeds upon the Stalk and Leaves, as well as they feed upon the Root. The breeding Tulips have plain Flowers, but if they are stunted one Year, they will break into Stripes the next Year, for the most Part; for last Year, 1724, I had a Parcel of Bagget-primo Tulips, that stood among a Plat of Yews and Box-trees, and were so stunted by the Trees, that this Year, when I planted them in a fresh Bed, I had hardly six left, but what were broke into Stripes, and many of them as good Flowers as most in *England*. If you would raise them from Seed, you should sow the Seed as soon as 'tis ripe, in Boxes, or Pots of fine Earth; and if you shelter them the first Winter under Matts, in the cold Weather, you may have them begin to blow in four or five Years afterwards, and they will bring choice Flowers; as I can witness, by having seen Mr. *Trowell's* Tulips, that he



he raised from the Seed of the Tulip, call'd, the Triumph of *Europe*, at his Gardens in *Poplar*, which are as fine as one can see any where. There are so many Sorts, that one can't well make a Catalogue of them. A large Bed of Tulips, even tho' they are indifferent, makes as fine a Show as any Flowers in the Garden.

8. The Anemony has a Clog, or Tuberous Root, and brings Flowers that are very much admired, both single and double, of several Colours; some plain, and others striped; the single ones flower twice a Year, that is in the Spring and in *September*, and most of the Winter, if the Ground is light: They may stand two Years well enough without taking up, and then you may divide the Roots and make five or six of one; but you must never transplant them, but when they have no Leaves upon them. When they blow in the Spring, you may save the Seed, but if you don't watch it well, it will be blown away; you may sow it upon a Bed of fine Earth, as soon as you gather it, very shallow; and you will have a good Crop next Year, but you must not expect all double; when they blow, mark the good ones, and take them up when the Leaves are decayed, and so you may all the rest, and keep them dry to plant them in common Borders; but you may save the best out of the Ground till *September*, and so plant them in a good Bed; when you take them up, and have washed them, break the Roots to pieces, saving the largest Knobs by themselves, for blowing, and the small Claws to be put in a Bed by themselves, to make blowing Roots for another Year: The Height of Bloom is in *April*. These are sold from five Shillings a Pound, to twenty-five Shillings.

9. The Ranunculus, is one of the finest Flowers that ever was brought into a Garden; the old sorts of Red make a dazling Show, but are almost lost, because of the Fineness of the new sorts, brought from *Turkey* and *Persia*, and the fine sorts which have been raised from Seed from them. Mr. *Potter*, Gardener of *Mitcham*,



has the best in *England*, and great Varieties of 'em, which blow very well every Year. Plant the Roots in *September*, and make the Earth very fine and light, and your Flowers will blow strong; but upon necessity, you may keep the Roots out of the Ground dry, till the End of *January*, or Beginning of *February*, and they will grow pretty well. If you will save the Seed, it must be from Semi-Doubles, that are well striped, and sow them very shallow in fine Earth, about *July* or *August* at farthest, and you will have some to blow the Year following. These Roots may be taken up as soon as the Stalks are quite wither'd, and laid up dry, till the Time of planting; but if you do not get the Seed till 'tis Winter, sow it the end of *January*; and if the Weather is dry, cover the Boxes a little with Chickweed, to keep them moist, till they come up. This blows from *April*, till the End of *May*. One can't have too many Seedlings of these, for from them you will always have Variety, and they will flower much better in the Ground where they are raised from Seed, than if they were to be transplanted else-where.

10. The Narcissus is a fine Plant, and flowers early in the Spring, beginning in *March*, and ending in *May*; that is, all the Sorts are so long a blowing; and their Leaves and Flower Stalks will be dry in *July*, and then may be taken up to be transplanted and increased, by separating the Off-sets: I have heard say, That some had raised good Varieties from Seed sown as soon as they are ripe, so that one may try with little Trouble; but it will be four or five Years before they blow: they make a fine Border-Flower, and I believe there is more than fifty Sorts already, if you believe the *Dutch Catalogues*; these are bulbous Roots, most of them upon the Yellow and the White.

11. The *Junquil*, is a Sort of Narcissus, but with Leaves like Rushes; both the Double and the Single are very sweet to the Smell, and comes early in the Spring; but the single *Junquil* blows a Fortnight before the  
Double



Double Sort; you must take up these Roots, and divide the Off-sets in *June*, and you may keep them dry till *August*; but at the beginning of the Month you should put them in the Ground; for Nature shews, that they want it; because, if we leave them in the Ground all the Year, the Leaves will be up above Ground, before *August* is out; this Flower will come in *January*, if you force it by warm Dung, or else in *March* or *April* in the natural Ground.

12. The bulbous Iris, both the great and small Sort, has a great many Diversities, as Red, Blues, Purples, Yellows, and Whites; they come in the End of *May* and in *June*; but the largest Sort comes the latest: they make a fine Show when we have little else but annual Flowers; you may raise them from Seed, and have many new Sorts; they will blow in four or five Years, and you must sow them as soon as the Seed is ripe, in fine Earth; the Bulbs must be taken up and parted, when the Flower-Stems are quite decay'd, and be put in the Ground again in a Month's Time: All the Bulbs that you raise from Seed must be prick'd out the second Year, as soon as the Leaves are decayed, and be planted every Year at greater Distances, till they blow.

13. The Fritillary, is of abundance of Sorts, that have been raised from Seed, sown, as soon as the Seed is ripe, in Boxes of fine Earth; 'tis a bulbous Root which blows in *April* and *May*; I have seen some of them very odd in their Flowers; their Roots may be transplanted any Time when their green Stalks or Leaves are decay'd or gone, and you may keep them out of the Ground 'till *September*: They should be planted in one Bed. We have had the finest Collection from *Holland*.

14. The Hyacinth, is a great Family, some like Stars, others like Bells, others like Bunches of Grapes, and some like Feathers; it has a bulbous Root, and is apt to increase very much: They say, That the best Sorts are in *Holland*; but I never saw so fine a Collection,

as



as I did at Mr. *Trowell's* at *Poplar*, which he raised from Seed of his own saving, The Seed must be sown, as soon as it is ripe, in Pots of fine Earth, and so planted out every Year, 'till they blow; the Prime of Bloom is in *April*, of those that are called the *Dutch* Kinds; but some of the starry Sorts come in *May*, and the Grape Hyacinths bring the Flowers in *March*. The Time of taking them out of the Ground, is, like other bulbous Roots, when their Flower-Stalks and Leaves are withered; but you must put them into the Ground again in *August*; for some put forth their Leaves very early. Notwithstanding the great Value that are set upon some of them. However, I think a good Bed of these they call *Pastouts* make as beautiful a Show.

15. The Cyclamen, or Sow-Bread, is of many Sorts, but are all raised the same Way; that is, by sowing the Seeds or Bulbs, for they look more like Bulbs than Seeds, as soon as they are ripe; some Sorts have striped Flowers, white and red; some white and sweet-scented; some only plain peach Colour; and then some blow in Winter, some in the Spring; some in the Summer, and some in the *Autumn*: 'Tis a pretty Flower, and all of them have pretty painted Leaves that make a good Show, when the Flowers are gone; the sweet-scented Sort may be kept in Pots to be housed in Winter; but I have heard, that it will stand abroad. The seedling Plants will blow in about four Years.

16. The Crocus is a small bulbous Root, very common in Gardens, and of a great many Sorts, which I suppose, first came from Seeds; for I have known great Varieties come by sowing the Seeds in *May* or *June*; these will also increase by the Roots, which multiply every Year: Some Sorts blow early in the Spring, and some of them are in Flower in *April*; the Time of taking them up, is when the Leaves are quite withered, and one may, in a Month or two afterwards, return them to the Earth in single Roots, because they begin to shoot early, and especially if you have a Mind to make them increase; but



but I have kept the Roots out of the Ground till *Christmas*, and they have blown very well, but did not increase much that Year. These make a good Shew in Edgings, and will blow in the closest Part of *London* one Year.

17. The Lilly, though it is an old Plant, makes a fine Shew in great Gardens, if you have all the Sorts, which are about half a Score; there are the Common White, the Double White, the White Striped, and the White Lilly with striped Leaves, that makes a good Shew with its Leaves all Winter; then there are the Orange Lilly, and the Orange Lilly with Variegated Leaves, the Roman Lilly, the Flaming Lilly, and two or three other Sorts; all these have scaly Roots, and increase by Off-sets, or may be increased by the very Scales, but you must not move them, but when they have no green Leaves on them, if you expect them to thrive: The Time for this Work, is about the End of *July*, or in *August*, when you may part their Roots.

18. The Martagon, or Mountain Lilly, is well worth our Trouble to nurse it in the Garden, for there are several very pretty Sorts of Martagons, as Yellow, Purple, White, Orange Colour, and Scarlet; and also a very fine Sort from *Virginia*; but that is not very common: the Roots of Martagons are very much like Lilly Roots, and increase the same Way, and may be removed as we do Lillies.

19. The Crown Imperial is another Sort of Flower that one should have in the Garden; the Root is large but not so scaly as the Lillies or Martagons, and smells very strong, like a Fox; there are several Sorts of them, as the Orange, the White, the Yellow, the Imperial, the Double, and some others, besides the common Sort with striped Leaves: You may take the Roots out of the Ground, as soon as the Flower-Stalks are decay'd, and may keep them dry 'till *September*. They blow in *March* and *April*. There are great Varieties of these at *Mr. Bacon's*, a Famous Gardener at *Hoxton*.



20. The Ornithogalum; or Star of *Bethlem*, is in many Gardens; there are a great Sort, and two or three little Sorts; they have pretty white Star-flowers, growing in Spikes, and blow in *June*; the small Sorts are very apt to increase abundantly by the Roots; but the great Sort does not increase so fast; they have bulbous Roots, and must be removed when the green Leaves and Flower-Stalks are entirely decay'd. As for the little Sorts, there is hardly any getting them out of the Ground, when you have once planted them; they would look very prettily among Flowers for Woods. There are other Sorts besides what I have touch'd upon, but they are rarely to be met with.

21. The Molly, brings a Spike of Flowers like the Stars of *Bethlem*, but not all of one Colour, for there are some White, some Yellow, and some Spotted; they make a good Shew in a Garden; but if you bruise the green Leaves, they will smell as strong as Garlick, so that one would think you had bruised Garlick; their Roots are bulbous, and may be transplanted when there is no green Leaf, or any Flower upon them. Mr. Bacon, of *Hoxton*, beforemention'd, has a good Variety of these.

22. The Asphodel, is a Flower that one should have in a Garden, because it is approved by many; there are two or three Sorts of them, one with Yellow Flowers, called *King's-Spear*, and the others blossom with white Flowers; you may increase them all, by parting the Roots as soon as they have done blowing.

23. Spiderwort is in some Gardens, and is look'd upon to be a pretty Plant; but there are many Sorts of it, some with blue and purple Flowers, and some with white Flowers; these must be increased by parting the Roots either soon in the Spring, or when they are out of Flower, and the Seed has shed. You may raise them, likewise, by sowing the Seeds in *March*.

24. *Colchicum*, or, Meadow Saffron, is called Son before the Father, and has some other Names; it is a  
Plant



Plant that blows juſt ſuch a Flower as a Crocus, but ſome are very double, and well ſtriped, which are reckon'd the beſt, and ſo are commonly ſow'd in the Gardens ; ſome are white, and ſome ſpotted with red, or Peachcolour ; others are all Peach-colour ; they blow in *Autumn*, when we have few Flowers, and make a good Shew ; but there are no Leaves appear when the Flowers come and the Roots muſt only be removed when the green Leaves are quite withered ; theſe Roots, while they lie dry, will bloſſom without being in the Ground ; but when you ſee the Flowers appear, you muſt preſently put them in the Earth ; there is one Sort with a yellow Flower, that blows in the *Autumn*, which is called the *Autumn* Crocus, but the green Leaf is a Colchium Leaf. Mr. Bacon, at *Hoxton*, has more Sorts of this Flower, than I have ſeen elſewhere.

25. Snow-drop ; that which we commonly call ſo, is one of the earlieſt Flowers in the Garden ; for the Flower appears the beginning of *January* ; it increaſes very much by the Roots, which are little Bulbs, and may be tranſplanted when there are no green Leaves to be ſeen ; there is one with a double Flower, very fine, that muſt be planted like the other ; it is a good Root to be ſet on the Borders of Beds, along with the following Plant and Crocus's.

26. Winter-Aconite begins to blow a little ſooner than the Snow-drop, but is a tuberous or knobbed Root ; it brings a yellow Flower in the Middle of its Leaf, and laſts all *January*, till the Crocus's come in ; it increaſes very much by the Root, and may be parted like the Anemomy, when there are no green Leaves upon it ; you may ſow the Seeds likewiſe as ſoon as they are ripe : It ſhould be put in a Place, when we have once got it, where it ſhould not be removed, becauſe you may chance, in digging, to bury it too deep, and if you ſow the Seed, you may bury them, and loſe your Stock ; 'tis beſt to take them up in *June*, but you muſt



must sift the Ground, because the Roots are like Knobs of Earth, and you can hardly find them.

27. The tuberous Iris, is a lasting Flower, like those that I have spoke of before ; but it is called the Flag Flower de Luce ; there are many Sorts of it, which make a fine Shew in a Garden, and are planted in many Places. You may increase it by dividing the Roots in *February*, or *March*, unless it is a Sort that blows very early in the Spring, which are the Dwarf-blue, and another, and they are best transplanted in *September* ; as you may do also the other Kind, if you think proper. These love moist Places ; of these the *Iris Calcedonica* brings the best Flower.

28. The *Gladiolus*, or the Corn-flag Flower, should be raised in a Garden ; there are three Sorts, one very Red, another almost Purple, and one Sort almost White ; it will increase by the Root, and from Seed ; you must part the Roots when the Flower-stalks are quite decay'd, and may sow the Seeds as soon as they are ripe. They blow in *June*.

29. The Pæony, or Piony, must be increased by parting the Roots when the Leaves are decayed ; there are the Double-red, the Double Flesh-colour, the Double-white, and the Male and Female Pæonies. They flower in *May*.

30. The Double Daiesies blow a long while in the Spring ; there are two Sorts of *Rainbow* Daiesies, one with red Flowers, and the other with white ; the Flowers will sometimes measure above three Inches over, if you transplant them every Year to keep them in single Heads ; so there are a great many Sorts with striped Flowers that have been raised from Seed, and one old Sort called the Hen-and-Chicken Daisy, that first brings a large Flower, and then from that Flower shoots many others ; you must part these Roots about *August*, and sow the Seed as soon as it is ripe. The last Sort, I have seen at Mr. *Furber's* Garden at *Kensington*.

31. There



31. There are several Sorts of *Hepaticas*, or Noble Liverwort, which all blow in the Spring; the Sorts are, the Sing White, Single Blue, and Single Peach-colour, and the Double Peach-colour, and Double Blue; they must be increased by parting their Roots when they are out of Flower. The single Sorts will flower in *January* and *February*. All these may be found at Mr. *Furber's* Garden at *Kensington*.

32. *Campanula Pyramidalis*, or Steeple Bell-Flower, is of two Sorts, one Blue, and another White, which grow to be six Feet high sometimes, and bear Flowers all the Way up; you should plant them in Pots in *February*, to make them blow well, and you may expect a good Bloom in *August*; you may increase these by Off-sets, to be taken off either in Autumn, or the Spring; if the Plants stand in a Border, the Seed will ripen well, and may be sown in *April*. There is one Sort called the Peach-Leav'd Bell-flower, that does not grow so high as the former, but may be raised the same Way; so the several Sorts of Bell-Flowers, called *Canterbury Bells*, *Coventry Bells*, and *Throat-worts*, may be all raised from Seed sown in *March* and *April*, and the latter increased by dividing the Roots.

33. The *Flos Cardinalis*; or, Cardinal Flower, is not the Product of every Garden; there are the Red and the Blue, but the Red is much the finest; they blow at the End of Summer, but should be kept in Pots; you must increase them by parting the Off-sets either as soon as the Flowers are gone, or at the End of *March*, or the Beginning of *April*; but you must keep them from the severe Frosts, and give them very light Earth. I have had Seeds of it from *North* and *South Carolina*, which I sowed in *February*, and by giving them the Assistance of an Hot-bed, have raised great Numbers.

34. The Nonsuch; or, Flower of *Bristol*, one of which is commonly called, the Scarlet Lichnis. There are of this Nonsuch, one Sort which brings a fine Head of  
Double



Double Scarlet Flowers, which is the Double Scarlet Lichnis, and another with single Scarlet Flowers, that make a good Shew; there is also another Kind of Nonfuch with double White Flowers, and one with single White; they may all be increased by the Offsets being separated in *March*; but the single ones may be increased also by sowing the Seeds in *March*, or *April*.

35. Monkshood, or Blue Helmet Flower, is a Flower that lasts a long Time in a Garden, and increases plentifully by the Roots, which must be parted soon in the Spring, or else in *September*; there are two or three Sorts of this Flower, differing somewhat in the Colour, but one of them is very poisonous.

36. Hellebore, the Black, and the White, are in some curious Gardens; the Black Hellebore is called the *Christmas* Flower, and brings a large white Blossom as big as a single Rose, but marked on the Back of the Flower with Red; it blows in *January*, and sometimes sooner. The White Hellebore is of two Sorts, only are different in the Colour of their Flowers; one Sort brings a long Spike of Greenish, and the other a long Spike of Blackish Flowers, but both have plaited Leaves, almost like Ribwort Plantain, but much larger. You may increase the Black Hellebore by dividing the Roots in *September*, and the white Sorts may have their Roots parted either in *February*, or *September*; but they will make little on it by Seeds. All these Sorts, but the Black Hellebore especially, are to be found in Mr. *Bacon's* Gardens at *Hoxton*.

37. The Holly Oak is one of the largest Sorts of Garden Flowers, and will sometimes blow seven or Eight Feet high; they bring both double and single Flowers, some plain, some striped, some almost Black, others Red, Purple, Pink Colour, Yellow, and White; they must be raised from Seeds sown in *March*, or may be increased by dividing the Offsets of the Roots in that Month.

38. The



38. The Mandrake, tho' it does not bring a very fine Flower, yet I cannot help taking Notice of it as a Curiosity, as well for what is said of its Root, as the Value which some give to the Fruit; it is said, that the Roots will grow as big as a Man, and be shaped like a Man; but I could never find the one, nor the other; the biggest Roots that I have seen, were not quite two Feet long, and of irregular Shapes. You may raise it from Seeds sown in *March*, but they will be a long Time growing to any Bigness, or before they bear Fruit.

39. Brank Urfine; or, Bears Breech; there is two Sorts of it, one has more prickly Leaves than the other; but they both bring handsome Spikes of Flowers; they do not love to be transplanted, but may be raised easily from Seed sown in *March*. They love shady Places.

40. Gentianella; or, the Small Gentian, which is commonly raised in the Gardens, brings a very fine Blue Flower, blossoming as well in the Winter, as in the Spring; it is increased very easily by parting the Roots in *September*, or even in *March*; it must have a light Ground, and will serve for an Edging.

41. Mountain Crowfoot; or, Mountain Ranunculus, there are many Sorts in the Gardens; there are the Double White, which some People call Batchellors Buttons, and a Sort called Globe Crowfoot; or, Double Globe, besides some more that have very likely Flowers; they must all be increased by parting the Roots in *March*, or in *September*; you should give them light Earth if you can possibly; for they like that the best of any. Mr. *Whitmill*, a famous Gardener at *Hoxton*, has a good Collection of these; they blossom in *April* and *May*, and bring abundance of Flowers.

42. Double Marsh Marygold makes a good Shew in the Spring, if we do not plant it in too warm a Place, it bears large double Yellow Flowers, and holds a long while in Flower; you must increase it by dividing the

Roots in *February*, or *Autumn*. As it was first found growing wild in the Marshes, so you may suppose, that Sort of Soil is the best for it. Mr. *Whitmill*, of *Hoxton*, has the only Stock I have seen of this Plant.

43. Perennial Sun Flower lasts a long while, and increases very much, so that you must divide the Roots every third Year about *February*, or *March*, or else the Plants will grow weak. This Plant should stand in an open airy Place.

44. The After; or, Starwort, has a great many Sorts; but I think the *Italian* Starwort is the best of them, as it brings a large Flower of a very good blue Colour, and blows close and upright; it comes the first of any, and lasts a long Time, when we have few other Flowers. We have next, a Sort which blows pretty tall in *September*, and a third Sort which blows in *October*; but these two have not Flowers so pleasant as the first; but however, are not to be disliked. I have seen some other Sorts, but I hardly think them worth while, or worth our Trouble; they all increase extremely by Off-sets from the Roots, which you may take off and transplant in *March*, and they bear Abundance of feather'd Seeds, which will soon stock a Garden with more Plants than you will have Occasion for. Bees delight very much in these Flowers.

45. The Fox Glove; or, Fox Finger as some People call it, has three Varieties, one with a Red Flower, another with a white Flower, and one Sort that is called the Iron-coloured Fox Glove; the last Sort makes a very good Shew about the End of Summer, where it happens to be; but it is a very scarce Plant; yet it is easily increased by Off-sets from the Roots, and also may be raised by Seeds; the other two Sorts only come from Seed, as I know of, where the Ground is sandy; it must be sown in *March*; the Seeds are very small, and will grow well, if you sow it, as soon as it is ripe, on the Side of a Bank.

46. The



46. The Fraxinella ; or, Bastard Dittany, has many Varieties, as I have heard say ; but I know not of above two Sorts that are raised in our Gardens ; which are, the Red and the White ; these increase by Offsets of the Roots, and may be raised from Seeds sown in *March* ; they make a pretty Shew in a Garden in *June* and *July*. These may be found in Mr. *Esquire's* Garden at *Hoxton*.

47. The Rose Campion is a Flower a Garden should not be without ; you have three Sorts of it, the fine double Red, the Purple, and that with a White Flower ; it is increased by dividing or parting the Plant at any Time when the Flower Stalk does not appear ; that is, early in *March*, or in *September* ; you may also raise them from Seeds sown in *March*.

48. The Wall Flower is of several Sorts, the double Yellow, the double White, very scarce, and the large single Yellow, with the Flower Leaves striped with Red ; these are the Sorts which are commonly raised in a Garden ; you may increase them all by planting Cuttings of them in *March*, or in *June*, or *July* ; but the great single Sort, may be raised by Seeds sown in *March* ; this great Sort, is a Sort of Bloody Wall Flower, which, in some Places, is double, and may then be raised by Cuttings.

49. The Everlasting Pea makes a goodly Shew in a Garden, during the greatest Part of the Summer, but must have something to support it, and it will then run up six or seven Feet high ; this has a long downright Root, and does not care much for transplanting, but yet may be removed, with care, in *February*, or *March*, or else may be raised from Seeds sown in *March* ; this brings Clusters of Pink-coulour'd Flowers ; but there is another Sort with blue Flowers, called the Upright Blue Everlasting Pea, which may be raised from Seed sown in *March*. At *Hoxton* are many of them.

50. The Stock Gilly Flower, is of many Sorts, and a fine Flower, so that a Garden cannot well be without

it; the best of them are the *Brumpton* Stock, with a large Red Flower, the *Twittenham* Stock, with a large Purple Flower, the Old Purple Stock, the Old White Stock, and the Annual Stock, as it is called; all these Sorts bring abundance of Plants with double Flowers; but chiefly the *Brumpton*, and the *Twittenham* Stock, are judged to bring the finest Flowers; and the last is so common in bringing double Flowers, that sometimes, one has not a single one in a Hundred to save Seed from. The other Sorts, whether they come single or double, begin to blow in Autumn, and last all the Winter in Flower. The best Time to sow these, for they are all raised from Seeds, in *March*, tho', lest the Winter should kill your Crop, you may sow some of every Sort in *August*, and they will certainly bear the Weather, tho' you loose the Seedlings of the Spring. All these love a very dry Soil, and the young Shoots of most of them, which have no Blossom Buds on them, will take Root, if we plant them about *April* and *May*, in fine Earth, and keep them from the great Heat of the Sun.

51. The Primrose Tree, is a kind of Flower which one should not want in a Garden; for it makes a good Shew, and is very fit for Bough-pots; it is raised from Seed sown in *March*, and blows not till the second Year, and then brings long Spikes of Yellow Flowers.

52. The *French* Honey-Suckle, brings very pretty Spikes of deep red Flowers, and makes a good Figure in a Garden: You must sow the Seeds in *March*; but must not expect Flowers the same Summer. The *St. Foyne* is one Sort of this, and makes a beautiful Shew in the Field, as well as good Provender for Cattle.

53. The Columbine, is a good Garden Flower, as well as a Pot-Herb; there are a good many Sorts of it, some with double Flowers, others with single Flowers of several Colours, both plain and striped; they are to be raised from Seeds sown in *March*, in a light Earth.

54. Double



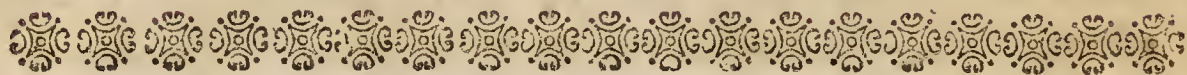
54. Double Featherfew, brings its Flowers very double in great Numbers; 'tis increased by dividing the Plant in Spring, or Autumn; 'tis a good Bough-pot Flower, but is not raised by Seed. Mr. Bacon cultivates this Plant very much; but I see little of it elsewhere.

55. The Valerian, is of several Sorts; there are the Red Flower, and the White Flower, which bring Seed enough to raise a great Number; you must sow them in *March*, and plant them out when they have three or four Leaves. There is also the *Greek* Valerian with Blue Flowers, which makes a pretty Plant, and of this Kind there is one with variegated Leaves, which is a Rarity, and looks very well. Mr. Bacon has the striped Sort.

56. The Marvel of *Peru*, though it is commonly reckoned among the Annuals, yet is not an Annual, because one may keep the Root many Years by taking it out of the Ground a little before Winter, and preserving it dry till the *April* following, and then, putting it again into the Ground; but there are no Off-sets will come from the Roots; so that you must raise it from Seeds sown in *March*, in Hot-beds, and the young Plants may be exposed abroad about the Middle of *May*, when the Weather is settled.

57. The Tuberose, is a Root we have every Year brought over from *Italy*, and some People put it among the Annual Plants; but it will last many Years, and blow from the Off-sets, if you separate them from the old Root when the Flower is decayed, and keep them dry till *April*, and then plant them in Pots. When we get this Root from *Italy*, you must either plant them in Pots of fine Earth in *February*, and give them a Hot-bed, but no Water till they begin to grow; or else plant them in *April*, or the Close of *March*, in a natural Bed, well exposed under a warm Wall; the First will blow early, and the latter will Blossom about *August*,

and when they are in Flower, they may be potted: It is a pleasant sweet Flower, fit to set in a Chamber.



**OF FLOWERS** *which grow upon Shrubs; and of climbing Plants.*

58. **T**HE Rose is esteemed one of the best Garden Flowers, and there are a great many Sorts of it; as the Monthly Rose, the Damask Rose, the *Provence* Rose, the Cinnamon Rose, the Double White Rose, the Red Rose, the Velvet Rose, two Sorts; the Double Yellow Rose, the *Rosa Mundi*, the *York* and *Lancaster* Rose, the *Chester* Rose, the Musk Rose, the Maiden's Blush, and some others; but these, which I have named, are the best; they all make small Bushes, and are apt to increase by Suckers from the Root; but may also be raised from Layers: The Time of taking off the Suckers is in *September*; and, at the same Time, you may lay down some of the young Branches; they all love a moist Soil, rather than a dry one; there is one thing to be observed also, which is, That you may bud, or inoculate one Sort of Rose upon another, or else enarch one Sort upon another. When you transplant them, you must take Care not to let the Roots become dry by the Air; but plant them immediately in a Mixture of Earth and Water, and they will soon strike Root. If you would have Rose-buds very forward, you may plant some of the Monthly Sort against a South Wall, that may be heated at the Back with Fire, or against a Pale, and warm the Back with Dung; but then you must put Glasses before them: As for the Double Yellow Rose, it is very scarce, and should be planted against a good Wall; an East Wall, some



some say, is the best. Most of these Sorts may be had at Mr. *Whitmill's* Garden; at *Hoxton*.

59. The *Spiraea Theophrasti*, is a Shrub which bears a pretty Spike of Flowers in the Summer, and is easily increased by dividing the Roots in *March*.

60. The Lylac, makes a very good Shew in a Garden, whether it be the Blue, the Purple, or the White; these are increased by Suckers from the Roots, transplanted in *February*, or *September*; and you may enarch one upon another; so the Plant which is called the *Persian Jasmine*, is, indeed, a Lylac, and may be enarched upon any of the Lylacs, as I have heard; or else you may increase it by Off-sets from the Root, like the other Lylacs. There is one Sort of Lylac at Mr. *Whitmill's*, which has striped Leaves, that makes a very fine Shew.

61. The *Syringa*, is a flowering Shrub that is growing in most Gardens, and brings very sweet Flowers, smelling almost like Orange Flowers; it grows very quick, and is increased by Suckers from the Root, to be transplanted in *March* or *September*.

62. Scorpion Senna, and the Bladder Senna, are good flowering Plants for a Garden; but the Scorpion Senna makes the best Plant for cutting or keeping in Shape; you may raise them both by Layers, which may be laid down in *September*, or early in the Spring; or else you may raise the Bladder Senna from Seeds sown in *March*.

63. The Honey Suckle, is of several Sorts, some of them being in Flower all the Summer long; but I think the Scarlet Honey-Suckle, and the Ever-green Honey-Suckle, are the best; they have the best colour'd Flowers, and last the longest in Flower; all the Sorts must be raised the same Way, either by Layers, or Cuttings; if you make Layers, you must do it about *October*; but you may plant your Cuttings in *November*, about a Foot long each, of the young Wood, burying, at least, two Joints in the Ground; you



would do well to sow some of the Berries, because it is likely they will bring some new Sort.

64. The Jessamy, or Jasmine, is of several Sorts; but there are of the hardy Sorts only three, to wit, the White, and the Yellow, from *Virginia*, and the common Yellow; these will stand abroad, and blow very well, if they be not cut too much; the tender Sorts, which are valued the most, are the *Catalonian* Jasmine, with single and double Flowers, the *Brazil*, or *Azores* Jasmine, and the *Arabian* Jasmine, with single and Double Flowers; all these may be budded, grafted, or inarched upon the common White Jasmine; but then we have the *Indian* Yellow Jasmine, which should be grafted, or budded only upon our common Yellow Jasmine; but this is not the common way of increasing Jasmines, for that is done chiefly by Layers, or Cuttings; I mean our common hardy Sorts, the White and Yellow; we may lay down the young Shoots either in the Spring, or Autumn; and we may plant Cuttings of either Sort in *October*, or *November*; or of the Yellow Sorts, we may plant some in *February*, and if we planted them in Cow-dung, with a little fine Earth, they would be likely to strike Root the better. These Layers or Cuttings, may make Plants, either for common planting, or grafting other Sorts upon; but the *Catalonian*, or *Spanish* Jasmine, will take Root from Layers in *September*, or from Cuttings then, or in *February*; and so will the *Brazil*, or *Azores* Jasmine, and also the *Arabian* Jasmine will afford Cuttings in *March*, and the *Indian* Yellow Jasmine will do well of Layers in *September*, or early in the Spring; and will often bring ripe Seeds, from which it may be raised, if sown as soon as ripe: Remember not to let your Plants want Water when you have laid down any Layers. I have seen so great a Quantity of ripe Berries of the Yellow *Indian* Jasmine, at the Seat of *Thomas Scawen*, Esq; at *Carshalton*, in *Surry*, that some Quarts of them might be gathered in a Summer.



65. Virgin's Bower, is a climbing Plant, and should be set always by some Place where it may have Opportunity of being supported. There are two Sorts, one with single Flowers, the other with double, both bring Purple Flowers; and I have heard say, that there is one with White Flowers, but I have not seen it; this is increased by dividing the Roots, and by Layers; we take off Slips from the Root in the Spring; but the best Way for Layers, is to lay them in the Summer.

66. The Laburnum, is a very pretty Plant, when it is in Flower, and holds a good while; it brings a great deal of Seed, which you may sow early in the Spring, and have Plants enough.

67. The *Spanish* Broom, blossoms a long Time in Summer, and shews very well in a Garden; it yeilds abundance of Seeds, which should be sown in the Spring; and affords the toughest Twigs for binding, or tying up any thing belonging to the Garden.

68. The Gelder Rose, makes a good Shew among other flowering Shrubs, and is increased by Suckers from the Root; and also you may raise it by laying down some young Soots in *September*.

69. The Althea Frutex, is of three Sorts pretty common, one sort has a deep Purple Flower, one with a Reddish Flower, and one with a White Flower. We may lay down the young Shoots of these, as soon as the Leaves are off, and so increase them; but they are also raised from Seeds sown in the Spring.

70. The Passion Tree, has a great many Varieties, but I shall only speak of the Sorts that are most common, and of a dwarf Kind, which bears Fruit with me in Pots. The common Sorts, that are generally found in Gardens, have Flowers alike; but the Fruit of one Sort is long, and the other round, and I can see no other Difference; they are raised by Layers, in *March* or *April*, and will also grow by Cuttings, planted at the same Time. There is great Fault in the common Way of pruning this Plant, which is, that towards  
Winter



Winter you have only some of the strongest Shoots nail'd up to the Wall, and all the Shoots of the same Summer, are cut off, so consequently all the flowering Shoots are cut off, and you must wait for new ones to be made the Year following, before you can have any Blossoms; so that when these new Shoots begin to blow, the Summer is gone, and the Fruit cannot set; but to manage this Plant as it should be, the young Shoots should stand all the Winter, which will cover and shelter the Stem from Frosts, and in the Spring nail up some of the best, and prune off the rest, and you will have Flowers early enough, and may expect Fruit; and 'tis much the same in the pruning of Jasmine, or Jessamy, where you must leave some of the smallest Shoots, to bring Flowers early. These great Sorts of Passion Trees will do very well to run up Trees, or to be planted among Hedges, if the Ground be pretty moist, tho' they are commonly set against Walls. As for my small Sort, which will blow and bear Fruit when it is not two Feet high, in Pots, it will not ramble enough to want much cutting, tho' the Fruit is the biggest of all the Sorts; but you must be sure to give it Water enough, and you may house it, if you will in the Winter, if it is in a Pot; because the Frost will then have less Power over it, than if it was planted in the natural Ground; but I have tried it in the Ground, and it will grow, and bear very well. I think that the common Sorts will make good Arbours, for they will shoot above fifteen Feet in a Summer, as I have heard say.

71. The Mezereon, must not be forgot among the flowering Shrubs, because of its pretty sweet Flowers, which blossom in *January*; there are two Sorts, one with Red Flowers, and the other with White, and are both very sweet-scented, and make a handsome Shew both in Flower, and when their Berries are ripe; but as these Plants are to be raised from Seeds, you must not let the Berries hang long after they are ripe, for the Birds will soon destroy them; you may sow them a  
little



little after you have gathered them, if you will; or to sow them early in the Spring, will do as well; sow them in Pots, or Cases covered with Nets, or else the Birds will have them; you may also graft, or inarch one Sort upon another.

27. The *Laurustinus* is one of our best flowering Shrubs, because it flowers in the Winter, when we have little or no Flower; and, besides, as it is an Ever-green, it is a good Harbour for Birds; there is one Sort of it with striped Leaves, that makes a very good Shew; we raise it by laying down the young Shoots, about *October* and *November*, and they will strike Root by the next Spring, so as to be fit to plant out the Autumn following. The Sort with striped Leaves is to be found at Mr. *Bacon's* before mentioned.

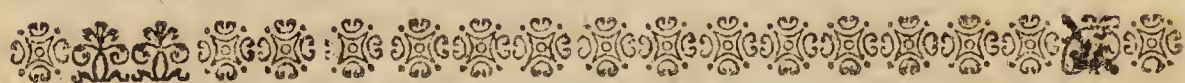
73. The Dwarf Almond makes a pretty Shrub, and blossoms well in the Spring; it increases well by Layers, and may be budded upon Almond Stocks. You may lay down some of the young Shoots about the Middle of *October*.

74. The Pomegranate, both the single and double-flower'd Sorts, will stand and flower very well, among other flowering Shrubs, and need not be planted against a Wall, as some imagine, unless it be the single Sort, to make it bring ripe Fruit; they are raised by laying down the young Branches, about *October*, or in *March*; they strike Root very easily; but when you first take the Layers from the Mother plant, they must be immediately replanted, before their Roots dry; you may also sow the Seeds of Pomegranates in a common Bed, in *April*, and they will come up. There is a dwarf Sort of it that will blossom and bring Fruit plentifully; it is very scarce, and I have not seen it, but at Mr. *Whitmill's*, and at Mr. *Bacon's* Gardens, at *Hoxton*; the largest Plants of this Sort, are seldom more than two Feet high.

75. The *Pyracantha*, is a fine Ever-green, and makes a good Shew when it is in Flower, and there is hardly any thing looks better than this Plant, when its  
Berries



Berries are ripe, which is towards Winter, and lasts a long Time, hanging on the Bushes like Clusters of Coral Beads; you may raise it by sowing the Berries in the Spring, or by laying down the tender Shoots in Autumn, and planting Cuttings of the young Shoots in May.



*Annual FLOWERS to be sown in the Natural Ground.*

**T**HE following Annual Flowers are most commonly sown in Edgings, or in Spots.

76. The Venus Looking-glass; is a low Plant, to be sown in *March, April, May, or June*, as you would have them flower, sooner, or later; they bring pretty Purple Flowers, and will hold about six Weeks in Blossom. Take care you do not sow it too thick, for the Seed is very small.

77. Dwarf Annual Stock, grows about the Height of the Venus Looking-glass; but bears pleasant Red Flowers; you must sow it as you do the Venus Looking-glass, at any Time from the Beginning of *March*, to the Middle of *July*; for it is hardy; and if you sow some in *August*, it will blow in Winter.

78. The White and Red Candy Tufts, grow about the same Height as the Dwarf Annual Stock, and may be sown at any Time, from the Beginning of *March*, till the Middle of *June*.

79. Venus Navelwort, has White Flowers, and does very well for Edgings; you may sow it from the Beginning of *March*, to the End of *May*.

80. The Pancy, or Hearts-Ease, or three-coloured Violet, makes a very good Shew, and may be sown in Spots, or Edgings, any Time from the Beginning of *March*, till the End of *July*; for they will blow in the Winter.



Winter. These will bear planting out; there are five or six Sorts of them.

81. Flos Adonis, or Adonis Flower, brings a fine Scarlet Blossom, and is by some People sown in Edgings, but is rather too tall. You may sow it at any Time from the Beginning of *March*, to the End of *May*.

82. *Lobell's* Catchfly, is sometimes sown in Edgings; but it is too tall. You must sow it *March*, *April*, or *May*.



*Of Annual FLOWERS, proper to be sown in the Natural Ground; but not in Edgings, or Borders.*

83. **T**HE Upright Lark-heel, or Lark-spur, and Rose Lark-spur, brings very delightful Flowers, of almost every Colour, both double and plain, and double and striped; they grow tall, and look best in a Bed by themselves; you must sow them in *March*, or else in *August*; the first will blow about *July*, and the *Autumn* sowing will stand the Winter, and blow in *May*. Weed out the single ones as soon as you perceive them. One may dry these Flowers so as to preserve their Colours many Years.

84. Sweet Scabious must be sown in *March*, and may be planted out when they have about four Leaves.

85. *Nigella Romana*, or, Devil in the Bush, is a very strange Sort of Flower, and may be sown in *March* or *April*; 'tis a Star-like Flower, consisting of Blue and White encompassed with Leaves like Fennel.

86. Double Poppy, striped and plain, are very beautiful, and of many Colours; and the Corn Poppy, with double striped Flowers, called the *Dutch Poppy*, is as fine

fine as a Carnation. You may sow these in *March*, or *April*, three or four Seeds in a Spot, or else sow a Bed of them; you may likewise sow them in *September*, to stand the Winter, for blowing early in the Summer.

87. *Convolvulus Minor*, or the Small Blue Convolvulus, has a very fine Flower, and holds its blowing a long Time; the Seeds of this will come up, if they are sown in *April*, in the natural Ground; and the Plants will blow better than if you were to raise them in an Hot-bed.

88. Corn-bottles brings Flowers of several Colours, and make a good Shew, to be sown in a Bed together; you may sow them either in the Spring, or in Autumn; but the Spring is the best.

89. The Lupine brings a pretty Flower, especially the Yellow, which smell like Violets; there are, also, the White flower'd Sort, the little Blue, the great Blue, and a Sort with a pale, reddish Flower. The Yellow Sort may be set at the End of *March*, or in *April* and *May*, and the others in *April*; but the Seeds must not be set nearer one another than six Inches.

90. The Scarlet Bean makes as pleasant an Annual, as any Flower of the Garden; but should be raised in a Place where it may have some Prop for it to twine about, because it will run up very high. This will last a long Time in Flower, and the Cods are eaten, sometimes, like other Kidney Beans; you must sow these Beans in *April*, when the Weather is dry; you may set them a Foot asunder; and, for want of tall wooden Props, put a little Stake of Wood in the Ground, and fasten some Packthread to it, then strain the Packthread tight, and nail the other End to a Wall, or any thing, eight or ten Feet high, the Bean will run up it.

91. The Everlasting Flower is of two or three Colours, and must be sown in *March* and *April*. The Flowers, when they are gathered, will keep many Years as fresh as when they were growing.

92. The



92. The Snails and Caterpillars are so named, because the Fruit, or Seed-pods, are exactly like Snails, and Caterpillars. They must be sown in *March*, or *April*; but these are borne upon two different Sorts of Plants.

93. Horns and Hedge-hogs, so called, because the Fruit of one of them is like Horns, and the Fruit of the other is full of Thorns, like an Hedge-hog; you must raise these by sowing the Seed in *March*, or *April*.

94. The Sweet Sultan is of two or three Sorts, and may be raised from Seeds sown in *April*, and transplanted when they have three or four Leaves, watering them well when they are transplanted. Mr. *Bacon* has one Sort with a Yellow Flower.

95. The Annual Sun-flower is of two or three Sorts, one with a large Yellow double Flower, another with a pale Yellow Flower, and one with a large single Yellow Flower; you may sow the Seeds of them in *March*, and transplant them when their first Leaf appears.



*Annual FLOWERS and Rarities, to be raised  
in Hot-Beds.*

96. **A** MARANTHUS TRICOLOR is a very fine Plant, with its Leaves painted with Green, Yellow, and Scarlet, and some with Purple, Red, and Green. These must be sown in *February*, or *March* at farthest, upon a Hot-bed; and when the Plants are about two Inches high, they should be prick'd out, at five or six Inches asunder; and when the Heat of one Bed declines, make a fresh one to plant them in; after you have potted them, in such Pots as you use for Carnations, and keeping them well water'd, let them remain drawing and forcing in the Hot-bed, and under Glasses, till they are three or four Feet high, and they will have  
very



very large Leaves, and be excellently well coloured, and so they may be set abroad ; but without they have some Forcing, they will not be above a Foot and a Half, or two Feet high, in a Summer, tho' the Summer be never so warm.

97. The *Amaranthus Cock's-Comb*, is very beautiful in its Manner of Flowering, or in its Comb, when it is well raised. There is one Sort with a Scarlet Comb, another with a Purple, and another with an Orange, or a Yellow Comb, that will sometimes, be as big as a good handsome Colly-flower ; but to make them come so large, you must draw, or force them, just like the *Amaranthus Tricolor*, and sow them as early upon the Hot-bed ; and so you may raise the *Amaranthus Tree*, to have it ready to plant out in the natural Ground, at the End of *May* ; and then, if the Summer be good, it will grow to be seven or eight Feet high.

98. The *Capsicum Indicum*, by some called *Guinea Pepper*, has a great many Sorts, some with long Scarlet Pods, others with long Yellow Pods, and others with round Pods, as well Scarlet as Yellow ; some with Pods hanging down, and some with their Pods erect ; all these must be sown upon an Hot-bed, early in *February*, and should be treated like the *Amaranthus*, till the End of *May*, and then planted abroad ; the Pods of these are very good pickled, while they are green, especially among pickled Cucumber.

99. Bush Basil must be sown early, upon an Hot-bed, and kept in the Hot-bed Frames, till about the Middle of *May*, and then planted in the natural Ground. This being dried, is used in Soups, and also in Perfumes, it has a fine strong Scent.

100. The *Convolvulus Major*, and the Sort with a Scarlet Flower, may be sown upon an Hot-bed, about the Middle of *March*, and planted abroad the Middle of *May* ; but must have Sticks to run upon.

101. The Sensible and Humble Plant, must be raised from Seeds, sown in the Hot-Bed, about the Beginning of



of *February*, and kept forcing with the *Amaranthus*, till *June*, and then must be kept constantly under Glasses ; because they would not be sensible of the Touch, if they were to be always exposed to the Air. The Humble Plant is much the best of the two, the whole Plant falling down flat to the Ground, at the Approach of the Hand.

102. The Female Balsam, is a pretty Flower, of two or three Sorts, one with red Flowers, another with white, and others with striped Flowers; you must sow these upon the Hot-bed, in *March*, and when they have three or four Leaves, prick them out, at five Inches Distance; and in the Middle of *May* they may be planted out in the natural Ground.

103. The *African* Marigold, may be sown upon a Hot-bed, about the Middle of *March*, and prick them out a little after they are come up, and so let them stand, allowing them pretty much Air, till the Middle of *May*, and then plant them in the natural Ground; or the Seed will come up if we sow it in *April*, in a light Soil.

104. The *French* Marigold, must be ordered and sown just the same Way as I directed for the *African* Marigold.

105. Bellvidere, makes a pretty Green Pyramid, without any beautiful Flower; but is admired by many. It must be raised from Seeds in *March*, upon an Hot-bed, and pricked out, to remain in the Frames till *May*, and then planted out for good.

And this concludes the Culture of such Flowers, as are commonly found in the best Gardens.



*Of Seeds, Mast, and Berries of Trees, how to raise them.*

**T**H E Seeds-man's Bill, in the Article of Evergreen Seeds, &c. begins with the Firrs, and Pines; as, first, the Silver-Firr, the *Norway* Firr, the Spruce-Firr, the *Scotch* Firr, the Great-Pine, and the Pinaster; these Seeds must be put in the Ground in *February*, or *March* at farthest; observing to sow the smallest Seeds shallower than the great ones; or such as are contained in hard Shells; when these are come up, they must be kept clean from Weeds, and have some Sand sifted among them, about the Winter, to keep their Roots from rising out of the Ground by Frosts. The best Time of transplanting these, is at the Beginning of *April*, or as soon as they have compleated their Summer Shoot, tho' one may plant at other Times, with extraordinary Care, but these Times are the best.

Cypress, has of late, been seldom raised of Seed; but for Such as would try the Experiment, let them put the Seed in the Ground in the Beginning of *March*.

*Cedrus Libani*; or, Cedar of *Libanon*, and the *Virginia* Cedar, may be sown in the Spring, in Boxes of fine Earth; some give them an Hot-bed, but it is not necessary; they will come up, and be stronger without it; you may, however, shelter them the first or second Winter from the Frosts, and then they will be able to shift



shift for themselves abroad. The Cedar of *Bermudas* may be sown like the former, but is more tender in its first four or five Years. As for the Cedar of *Libanus*, or *Libanon* (which is the same thing) when they are about two Feet high, you may transplant them into Woods, where the Trees are not too thick; they grow very well in our Climate, and many of them have been planted lately in *Suffolk*, with good Success; Mr. *Bacon*, at *Hoxton*, has a good Number of them.

*Phyllirea-Vera*, and *Alaternus*, the Berries of them may be sown in a shady Place (but not under Trees) in *February*; one may chance to raise some Varieties from them.

Laurel Berries, or the Seed of the *Lauro Cerasus*, or Cherry-Bay, to be sown in *March*; they are of the Nature of Cherry-stones as to their coming up.

Bay-Berries are to be sown in *February*, or *March*; they will soon come up; it would be a good lucky Hit to raise one with the Leaves well edged with White or Yellow, tho' we have one already very well striped, which was sent to Mr. *Bacon's*, at *Hoxton*, from *Holland*.

Myrtle-Berries must be sown in Pots, or Cases of good sifted, or screen'd Earth, in *February*, tho' some choose to put in the Seed as soon as it is ripe; either Way will do; but we must house them in the Winter.

Juniper-Berries must be sown in a loamy Soil, well screen'd, about the Beginning of *March*, whether they be of the *Englisk*, or of the *Swedish* Kind.

Holly-Berries are commonly laid in Earth, in a Heap, the first Year, and then taken up and sown immediately,

before they dry, in Beds of good prepared natural Soil ; the Time of sowing them is in *February*. They grow slowly the first Year or two, but afterwards make a good Amends.

Yew-Berries, must be laid in Earth the first Year, as we do Holly-Berries, and in *February*, or *March* following, they must be sown on Beds of fine Earth, in some shady Place.

Horn-beam Seed is to be sown in shady Beds in *February*, and in the Summer must be kept well watered ; you may plant them out the second Year after they are come up, in Rows, at five or six Inches Distance.

Beech-Mast should be sown in *February*, or as soon as it is ripe ; but the Spring is look'd upon to be the best, because the Vermin are apt to destroy it, if we put it in the Ground as soon as we gather it.

*English* Acorns, or Acorns of the common Oak, should be set in *February*, or *March*, and may be transplanted the second Year, either at the End of *September*, or in *February* ; but it is better to sow them where they are to stand to the Time of their Perfection.

Ever-green Oak-Acrons, and Bork-Tree-Acrons, may best be set in *February* ; but they will grow, if they are put in the Ground, as late as the End of *May*. I mention this, because the Ships from abroad do not arrive with them till it is late in the Spring, and then some are apt to conclude, the Acorns are good for nothing ; but it is certain, that even if they are put in the Ground in *June*, they will grow.

Lime-Tree-Seed must be sown in *February*, or *March*, in Beds of fine sifted Earth. If one could be fortunate enough



enough to raise one with fine striped Leaves, it would be a Plant of Value.

Ash-Keys must be sown in *February*, on Beds; or else, the first Year may be laid in a Heap under Ground, and sown the second Year, in *February*; they may be transplanted the *February* after they are come up.

The Sycamore; or, Great Maple, must have its Seeds sown in *February*, and they come up the first Year, and may be planted out the Spring following. There is one of this Kind with striped Leaves, very beautiful; and the Seeds of this will bring striped Plants again; but one may bud, or inoculate this upon the plain Sort.

Elm-Seed should be sown as soon as it is ripe, which is the Beginning of *April*, it must be thinly covered with fine Earth, and kept from the Birds with a Net, till it comes up; but the Seedsmen seldom have any, unless it is bespoke, which should be two Months before-hand, for it must be watched; but they provide young Elm-Sets by the thousand, which should be got by the Beginning of *February*, or in *January*, if the Weather is open, and planted in Lines, in some shady Place, about four Inches asunder.

Arbeles; the young Sets to be had in *October*, and planted then, or in *February*.

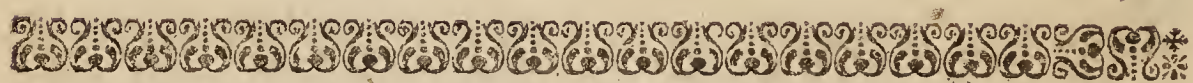
Horse-Chestnuts are to be set in the Ground in *March*, they grow quickly, and yield a pleasant Shade.

*Spanish* Chestnuts, are set in *March*, in Beds; they should be set in such a Place, where they may have some Shelter the first Winter; for they are

then apt to lose their Tops, if they be too much exposed.

Almonds, either the sweet or bitter, are to be set in their Shells in *February*; they grow very quick, and may serve to bear, or be budded upon, with some Sorts of Peaches.

Philbuds, or Philberts, or *Spanish Nuts*, are either to be set, or sown, from the Times they are ripe; till the End of *March*, and in three Year's Time they will make very good Plants.



### SEEDS for the Improvement of Land, how to sow them.

**C**LOVER-SEED, *Dutch Clover*, and *Trefoil*, are to be sown the End of *February*, and in *March*; one or other of these is often sown with *Barley*, and will hold a good while, to be mown after the *Barley* is off the Ground; they are sometimes sown with *Rye Grass*, and will last many Years, and bring two or three rich Crops a Year, especially if they are upon a strong Soil.

*Rye Grass*, or *Rey Grass*, is sometimes sown by itself, upon stiff Clay Ground, and sometimes with one of the Clovers in *February*, or *March*.

*Saint-Foin*, is a good Improver of gravelly Soil, and, for that End, should be sown soon in the Spring.



La Lucern, is a great Improver of Land, and must be sown in *March*. At Mr. Bacon's Garden at *Hexton*, may be now seen, 1732, Lucern in great Vigour, which was sown seven Years ago, by only making a Drill with a little Stick in a course Clay, that had never been manured.

Spurry, brings good Food for Poultry, and may be sown any Time between *February*, and the End of *April*; you may have two Crops a Year, if you please, upon the same Spot; it is good for poor Ground fresh broken up.

*French* Fuze, brings good Firing; where that Commodity is scarce, it is of Value, and will grow upon any Ground; you must sow it in *February* or *March*.

*Dantzick* Flax, will do well upon a fresh broken-up Ground; it must be sown in *March*.

Hemp-Seed is to be sown for the Sake of making Sacking and Cordage; it loves a pretty strong Soil, and moist; you must sow it in *March*.

Rape-Seed is proper for wet, fenny Grounds, and such as are just recovered from the Waters; the Seed is valuable to make Oil, and the Plants serve for a good Fodder; sow this at the End of Summer.

Canary-Seed is an extraordinary Fattener of Fowls, it will do well in any Ground, and must be sown in *March*.

Mustard-Seed is good for a very strong Soil, and will turn to good Profit; you must sow it in *March*.

Millet-Seed is a very good Food for Fowls, and brings a great Crop, in a good Year; sow this early in *February*, if the Ground is open.

*Fruit Trees mentioned in the Seedsman's Bills.*

They are Apricots, Peaches, Nectarines, Plumbs, Cherries, Apples, Pears, Quinces, Medlars, Figs, Grapes, Mulberries, Walnuts, Gooseberries, white *Dutch* Currants, red *Dutch* Currants, Rasberries, and Strawberries; these, with all their Varieties, may be planted either in the Spring, or in the Autumn, with this Caution, that if your Ground lie wet, the Spring planting is the best; but if it be dry, light Soil, the Autumn planting is the best; and it is to be observed, that when Trees are wanted, they cannot well be bespoke too early in the Season; for then there is always the greatest Choice in the Nursery; and so when Gentlemen send to Town for bulbous Roots of Flowers, it will be best to send betimes in the Season for them, because when they have lain out of the Ground so long as *November*, they cannot be expected to blow so well and so strong, as if they had been planted in *August* or *September*; and then the Seedsman or Flowerist, is blamed.

I am come now to a Conclusion of what I intended, to wit, The teaching how to sow and plant every Thing mentioned in the Seedsman's Bills, which, I hope, will be no less agreeable than useful.

S E E D S,





SEEDS, PLANTS, &c. *mentioned in this Tract.*

*Seeds of Roots.*

**S**TRASBURGH Onion-Seed.

*Spanish* Onion.

*English* Onion.

*London* Leeks.

Long Orange-Carrot.

Red Carrot.

Swelling Parsnips.

Round Turnip.

Yellow Turnip.

Skirret.

Scorzonera.

Salsify.

Potatoes.

Rockamboles.

Shallots.

Garlick.

*Sallad Seeds.*

**L**ondon Radish.

*Sandwich* Radish.

*Spanish* Radish.

Cabbage Lettuce.

*Lombard* Lettuce.

Imperial Lettuce.

*Silesia* Lettuce.

*Roman* Lettuce.

Curl'd Lettuce.

Royal Lettuce.

Goss Lettuce.

Brown *Dutch* Lettuce.

Round Spinage.

Prickly Spinage.

Red Beet.

White Beet.

Curl'd Endive.

*Italian*

*Italian* Salary.

Sweet Fennel.

*English* Fennel.

Rocket.

White Mustard.

Harts-horn.

Sorrel.

*Spanish* Cardoon.Small *Indian* Cresses.Large *Indian* Cresses.

Rampion.

Garden Cresses.

Broad-leav'd Cresses.

Curl'd Cresses.

Charvil.

Green Purslane.

Yellow Purslane.

Parsley.

Alifander.

Corn Sallad.

Asparagus.

Colly-Flower.

*English* Cabbage.*Battersea* Cabbage.Early *Dutch* Cabbage.*Russia* Cabbage.

Red Cabbage.

Sherwort.

Savoys.

Curl'd Colworts.

Col-Rapi.

Colworts.

Melon.

Cucumbers.

Pompion.

Gourd.

Meakin.

*Pot-Herb Seeds.***E** Ndive.

Succory.

Borage.

Bugloss.

Burnet.

Bloodwort.

Clary.

Double Marygold.

Pot Marjoram.

Summer Savory.

Tansy.

Nepp.

*French* Mallows.

Orach.

*Sweet Herb-Seeds.***T** Hyme.

Hysop.

Winter-Savory.

Sweet Marjoram.

Sweet Basil.

Small Bush Basil.

Rosemary.

Lavender.

Baum.

*Physical Seeds.***C** Arduus Benedictus.

Scurvygrafs.

Angelica.

Goats Rue.

Roman Mustard.

Nigella.



Nigella.  
 Dwarf Elder.  
 Lovage.  
 Smallage.  
 Tobacco.  
 Dill.  
 Carraway.  
 Cummin.  
 Wormwood.  
 Rue.  
 Annise.  
 Coriander.  
 Gromewel.  
 Henbane.  
 Plantain.  
 Nettle.  
 Fænngræek.  
 Burdock.  
 Cardamum.  
 Daucus.  
 Wormseed.  
 Oculûs Christi.  
 Marshmallows.

*Flower-Seeds.*

**C**arnation July-flow-  
 er.  
 Brumpton Stock July-flow-  
 er.  
 Striped Stock July-flow-  
 er.  
 Annual Stock July-flower.  
 Wall-flower.  
 Pinks, all Sorts.  
 Striped Columbine.  
 Double Larks-heel.

*African* Marygold.  
*French* Marygold.  
 Snap-Dragon.  
 Candy Tuft.  
 Sweet Scabious.  
 Sweet William.  
 Capficum Indicum.  
*Venus's* Looking glass.  
*French* Honey-Suckle.  
 Scarlet Lichnis.  
 Rose Campion.  
 Capanillum.  
 Noli me tangere.  
 Marvel of Peru.  
 Nasturtium Indicum.  
 Sweet Sultan.  
 Valerian.  
 Belvidere.  
 Branch'd Sun-flower.  
*Canterbury* Bells.  
 Flos Adonis.  
 Nigella Romana.  
 Urtica Romana.  
 Amaranthus Tricolor.  
 Amaranthus Cock's-Comb.  
*Portugal* Bush-Basil.  
 Prince's Feather.  
 Double Poppy striped.  
 Double Holy-oaks.  
 Lobel's Catchfly.  
 Monkshood.  
 Convolvulus.  
 Bottles of all Colours.  
 Globe Thistle.  
 Lupines all Sorts.  
 Scarlet Beans.  
 Everlasting Pease.

Winged

Winged Pease.  
 Sweet-scented Pease.  
 Snails and Caterpillars.  
 Horns and Hedge-hogs.  
 Polyanthos.  
 Primrose.  
 Sensible Plant.  
 Humble Plant.

Lime-Tree Seed.  
 Sena Seed.  
 Althea Frutex Seed.  
 Laburnum.  
 Spanish Brooom  
 Horse Chesnuts.  
 Almonds.  
 Filberds.  
 Beachmast.

*Seeds of Ever-Green,  
 and Flowering Trees.*

*Sorts of Pease and  
 Beans.*

**C**Ypress.  
 Silver Firr.  
 Norway Firr.  
 Spruce Firr.  
 Scotch Firr.  
 Great Pines.  
 Pinaster.  
 Phillirea Vera.  
 Alaternus.  
 Pyracantha.  
 Arbutus.  
 Hornbean.  
 Laurus Tinus.  
 Mezerian Berries.  
 Cedar Berries.  
 Holly Berries.  
 Laurel Berries.  
 Bay Berries.  
 Juniper Berries.  
 Yew Berries.  
 Myrtle Berries.  
 Ever-green Oak-Acorns.  
 English Acorns.  
 Cork-Tree Acorns.

**A**LL sorts of Hot-spur  
 Pease.  
 Essex Redding Pease.  
 Dutch Admiral Pease.  
 Egg Pease.  
 Large White Rouncival  
 Pease.  
 Maple Rouncival Pease.  
 Grey Rouncival Pease.  
 Large white Sugar Pease.  
 Marrow Pease.  
 Cruck'd Sugar Pease.  
 Dwarf Pease.  
 Rose Pease.  
 Spanish Beans.  
 Portugal Beans.  
 Hot-spur Beans.  
 Windsor Beans.  
 Sandwich Beans.  
 White Kidney Beans.  
 Red Kidney Beans.  
 Speckled Kidney Beans.  
 Lentils.



*Seeds to improve Land.*

**C**lover Seed.  
*Dutch Clover.*

Treyfoile.

Saint-foin.

Ray-Grass.

La Lucern.

Spurry.

*French Furze.*

*Dantzick Flax.*

Hemp Seed.

Rape Seed.

Canary Seed.

Mustard Seed.

Millet Seed.

*Flower Roots.*

**R**anunculas, all sorts.

Anemonies, all sorts.

Tulips, all Sorts.

Auriculas, all sorts.

Polyanthos, all sorts.

Iris's, all sorts.

Crown Imperial, all sorts.

Fraxinella's, all sorts.

Hepatica's.

Crocus, all sorts.

Narcissus, all sorts.

Hyacinths.

Tuberoses.

Double Jonquils.

Double Pionies, all sorts.

Fritillaria, all sorts.

Hellibore, three sorts.

Colchicums, all sorts.

Lillies all sorts.

Gladiolus, all sorts.

*Sorts of Trees and Plants.*

**O**Ranges.

Lemons.

Pomegranates.

Oleanders.

Amomum Plinii.

Hollys.

Arbutus.

Cedrus Libani.

Cedar Bermudas.

Jessamine.

Cistus, all sorts.

Geranium noctu olens.

Nightshade variegated.

Althæa Frutex.

Woodbine variegated.

Laurus Tinus.

The Striped Laurel.

The Maracock of *Virginia*.

*Fruit Trees, &c.*

**G**OOSEBERRIES,  
all sorts.

Large white *Dutch Currants*.

Large red *Dutch Currants*.

Apples, all sorts.

Pears,

Pears, all forts.

Plumbs all forts.

Cherries, divers forts.

Quinces, all forts.

Medlars, all forts.

Figs all forts.

Walnuts, all forts.

Grapes, several forts.

Creepers.

Peaches, several forts.

Apricots, several forts.

Nectorines, all forts.

Strawberries, all forts.

Rasp-berries, all forts.

Mulberries.

Elms.

Arbeles.

Sycamores.

Artichoaks.

Liquorice.

Colly-flower.

Cabbage, and

Tarragon.

*F I N I S.*





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